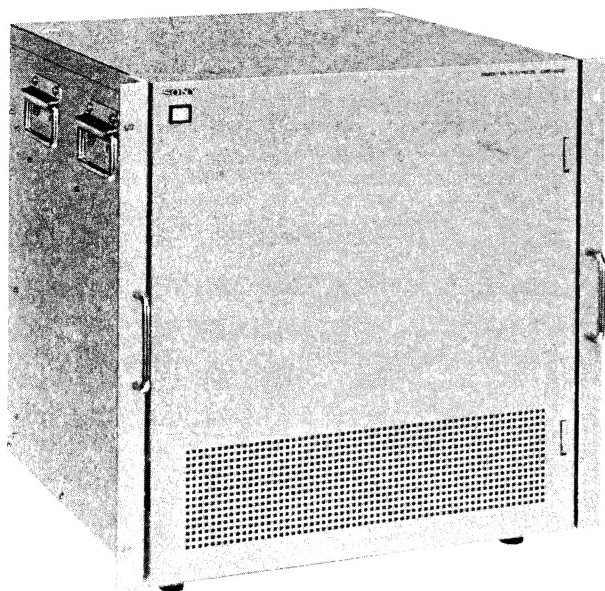


SONY®

DIGITAL MULTI EFFECTS

DME-5000



OPERATION AND MAINTENANCE MANUAL

2nd Edition

Serial No. 30001 and Higher(SY)

Serial No. 40001 and Higher(EK)

For the customers in the U.S.A.**Warning**

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

The shielded interface cable recommended in this manual must be used with this equipment in order to comply with the limits for a computing device pursuant to Subpart J of Part 15 of FCC Rules.

For the customers in Canada

This apparatus complies with the Class A limits for radio noise emissions set out in radio interference regulations.

Pour les utilisateurs au Canada

Cet appareil est conforme aux normes Class A, pour bruits radioélectriques. Tel que spécifier dans le règlement sur le brouillage radioélectrique.

Bescheinigung des Herstellers

Hiermit wird bescheinigt, daß der Digital-Multieffektor DME-5000 in Übereinstimmung mit den Bestimmungen der EG-Richtlinie 82/499/EWG funkentstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

Sony Corporation

Hinweis:

Gemäß dem Amtsblatt des Bundesministers für das Post und Fernmeldewesen Nr. 163/1984 wird der Betreiber darauf aufmerksam gemacht, daß die von ihm mit diesem Gerät zusammengestellte Anlage auch den technischen Bestimmungen dieses Amtsblattes genügen muß.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

Check the metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 3.5 mA. Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 5.25 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 20 V AC range are suitable. (See Fig. A)

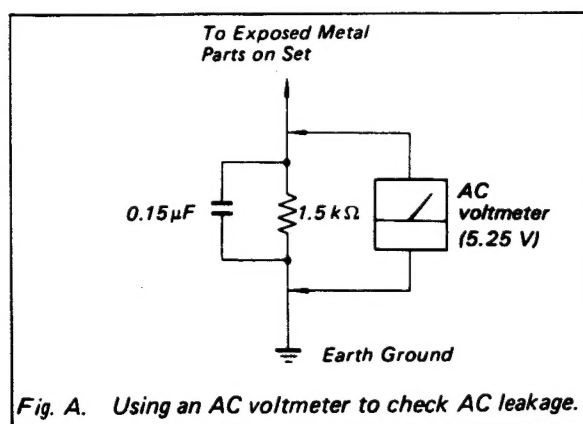


Fig. A. Using an AC voltmeter to check AC leakage.

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Section 1. OPERATION

1-1. Overview

The DME-5000 digital multi effects produces high image quality effects by all-digital processing. It can be controlled from a BKDM-5070 control panel, or operated together with a DVS-8000/8000C digital video switcher system, and controlled from the same BKDS-8010 control panel as the switcher system.

1-1-1. Principal Features

Serial digital I/O

The unit uses serial digital I/O for all connections, each of which therefore requires only a single coaxial cable. Compared with conventional parallel interfaces, this feature reduces the effort required to set up connections, and the absence of skew timing errors increases reliability and allows longer-distance transmission.

Compatible with both composite and component formats

With four optional I/O boards (BKDM-5010/5011/5012/5013) available, the unit is compatible with all combinations of component and composite, digital and analog formats. When connecting the unit to an existing system, select the optional I/O board suitable for the switcher to be used.

Integrated operation with a DVS-8000 series switcher system

You can connect a DME-5000 unit to a DVS-8000/8000C switcher system, and control both units from a single control panel. This provides an integrated system, operating entirely in digital mode, and yielding perfect picture quality. The high-level DME LINK® function supports effects such as DME wipes, which combine video effects with the switcher wipe function.

Concurrent multichannel operation

You can connect two to four DME-5000 units together and use the same control panel to control up to four channels simultaneously or a selected channel only.

Image combination function

You can connect together two or more DME-5000 units fitted with the BKDM-5020/5021 digital combiner board and combine up to four channels in a single image. This combination function uses special signals containing depth information, which enables highly realistic effects, in which the images can be manipulated in 3-dimensional space.

Automatic switching between frame and field processing

The motion detector automatically switches the unit between frame mode for frame-by-frame image processing and field mode for field-by-field image processing according to the movement of the image. Each frame of image information processed in frame mode is equivalent to two fields of image information, so that the frame mode ensures no degradation of picture quality. To produce a new image using effects, frame mode will enable more precise processing than field mode. However, for processing to realize natural and smooth movement of an image, the field mode will be more suitable than the frame mode.

1-1-2. Board Selection/Switch Settings for Different Modes

The unit can operate in three modes, D2 (NTSC), D1 (525) and D1 (625), depending on the signal format used. These three modes require different switch settings, and different boards (both standard and optional).

When modifying your system or adding options, check the boards fitted and switch settings on the boards.

Switch settings

The following table indicates the board switch settings to be made according to the operation mode.

For the locations and functions of the first three switches (item nos. 1 to 3 and 5) listed in the table, see Section 1-2-1 "Front Panel and Interior" on pages 1-5(E) to 1-11(E).

For the locations of the last three switches (item nos. 4 and 7 to 9), see Section 9 "PRINTED CIRCUIT BOARD". These switches are labeled S3, S5 and S6 on the respective boards.

Item No.	Board name	Switch name/bit no.	Mode/Setting (1:ON, 0:OFF)		
			D2 (NTSC)	D1 (525)	D1 (625)
1	DPR-42	S2-S4(MOSAIC H START)*	EAE	EAD	EAD
2	DPR-16	S1-S6 (BORDER V/H)*	FF4FBA	FF5FC0	FEEFBE
3	DPR-16	S8-S13* (DROP SHADOW V/H LIMIT)	EFFC76h	EFF8C6h	ED28ADh
4	DPR-16	COR3	xx00x	xx00x	x0xx0
5	DPR-17	S7 (MODE)	11	01	00
6	DPR-18	S2 (MODE)	00	10	11
7	CPU-106	S3, bits 1 and 2 **	01*****	00*****	10*****
8	DLP-10	S5, bits 1 to 8	10010001	10101010	11011010
9	DLP-10	S6, bits 1 to 8	01010001	01101010	00111010
10	DSC-58 (BKDM-5060)	COR8	○	○	×

* The required settings of these switches depend on which optional boards are used in this unit. For details, consult your authorized Sony dealer.

** Do not change the setting of bits 3 to 8.

Standard boards

The standard boards used in the unit are the same for all the three operation modes, except for the boards to be inserted in the following slots, which depend on the mode to be used.

Slot No.	Mode/Board name		
	D2 (NTSC)	D1 (525)	D1 (625)
8	DPR-18		DPR-18 (A)
10 to 12	MEM-41		MEM-41 (A)

Options

The following table lists the options available. As it indicates, some options require different boards to be used between D1 and D2 modes.

Option name	Mode/Board type		
	D2 (NTSC)	D1 (525)	D1 (625)
Digital/analog signal I/O	BKDM-5010	BKDM-5011	
Digital signal I/O	BKDM-5012	BKDM-5013	
Digital combiner	BKDM-5020	BKDM-5021	
Non-linear effects	BKDM-5030		
Lighting wipe effects	BKDM-5040		
Graphic display	BKDM-5060		

1-1-3. Important Notes

Handling circuit boards

It should not normally be necessary to remove or replace boards. For maintenance purposes, or when installing optional boards, observe the following precautions:

- Before inserting or removing a board, ensure that the power is switched off (see page 1-6(E)).
- Before turning the power on after inserting a new board, make sure that the number on the board matches that on the slot. See Section 3-4 "How to Install and Remove the Boards" for more details.

These precautions are important to avoid damage to the circuit boards.

Circuit breaker

If a current surge occurs in the unit, the breaker will trip and cut off the power automatically (see page 1-6(E)).

If the power does not come on when you switch on, the breaker may have tripped. Open the front panel and push the BREAKER button in.

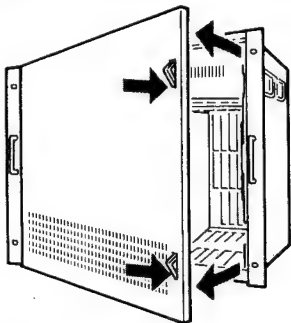
1-2. Location and Function of Parts

1-2-1. Front Panel and Interior

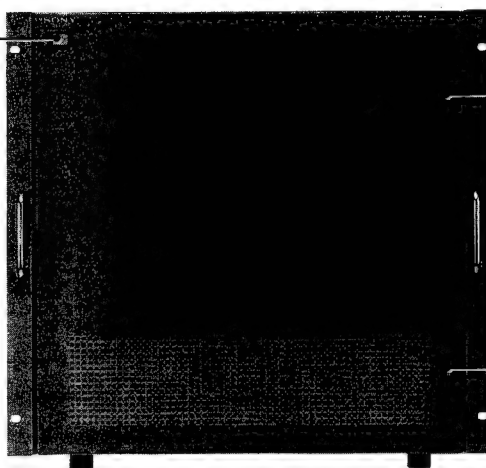
Front panel

How to open the front panel

Press the bottom end of each door handle, and pull forward.

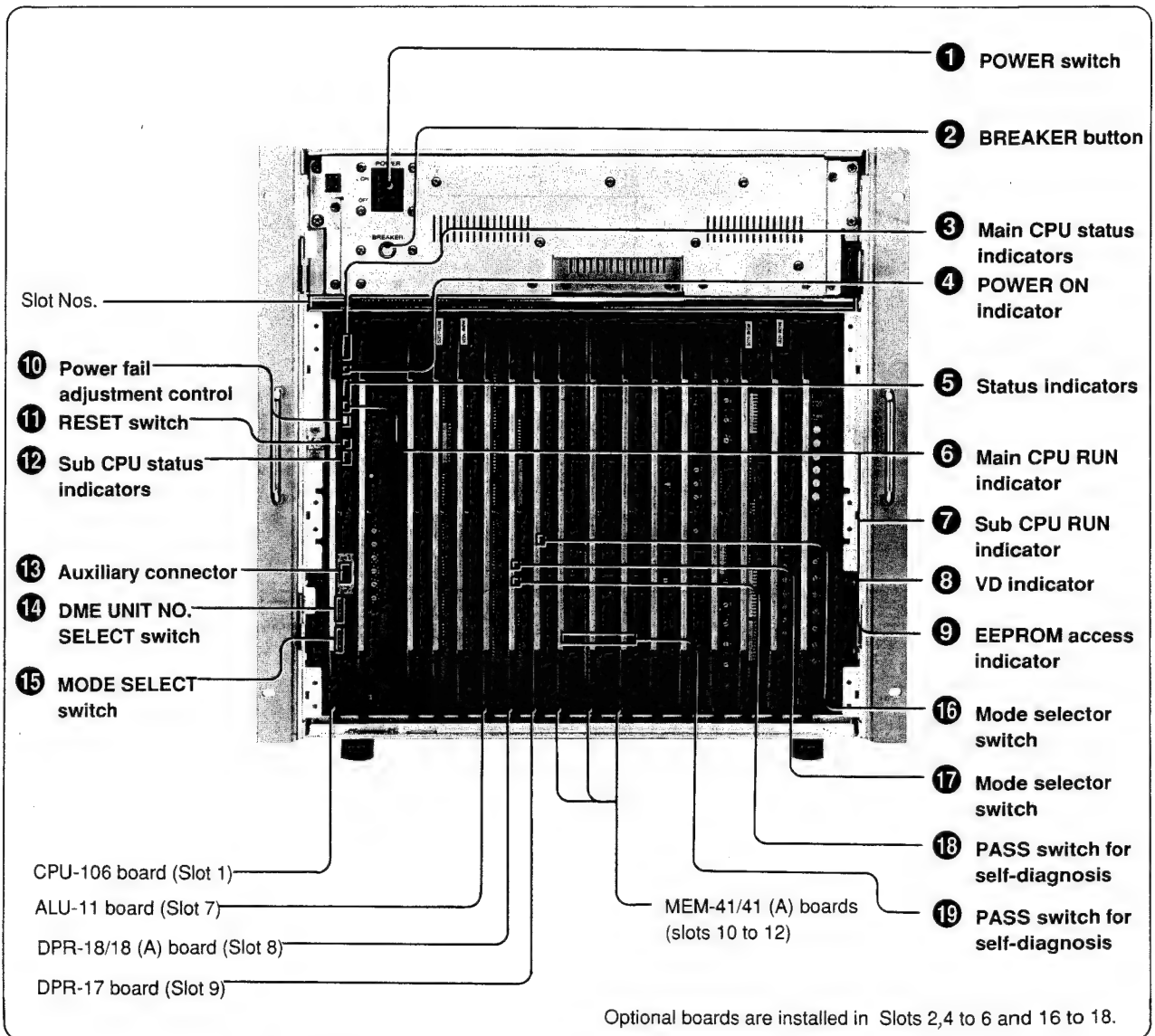


POWER indicator



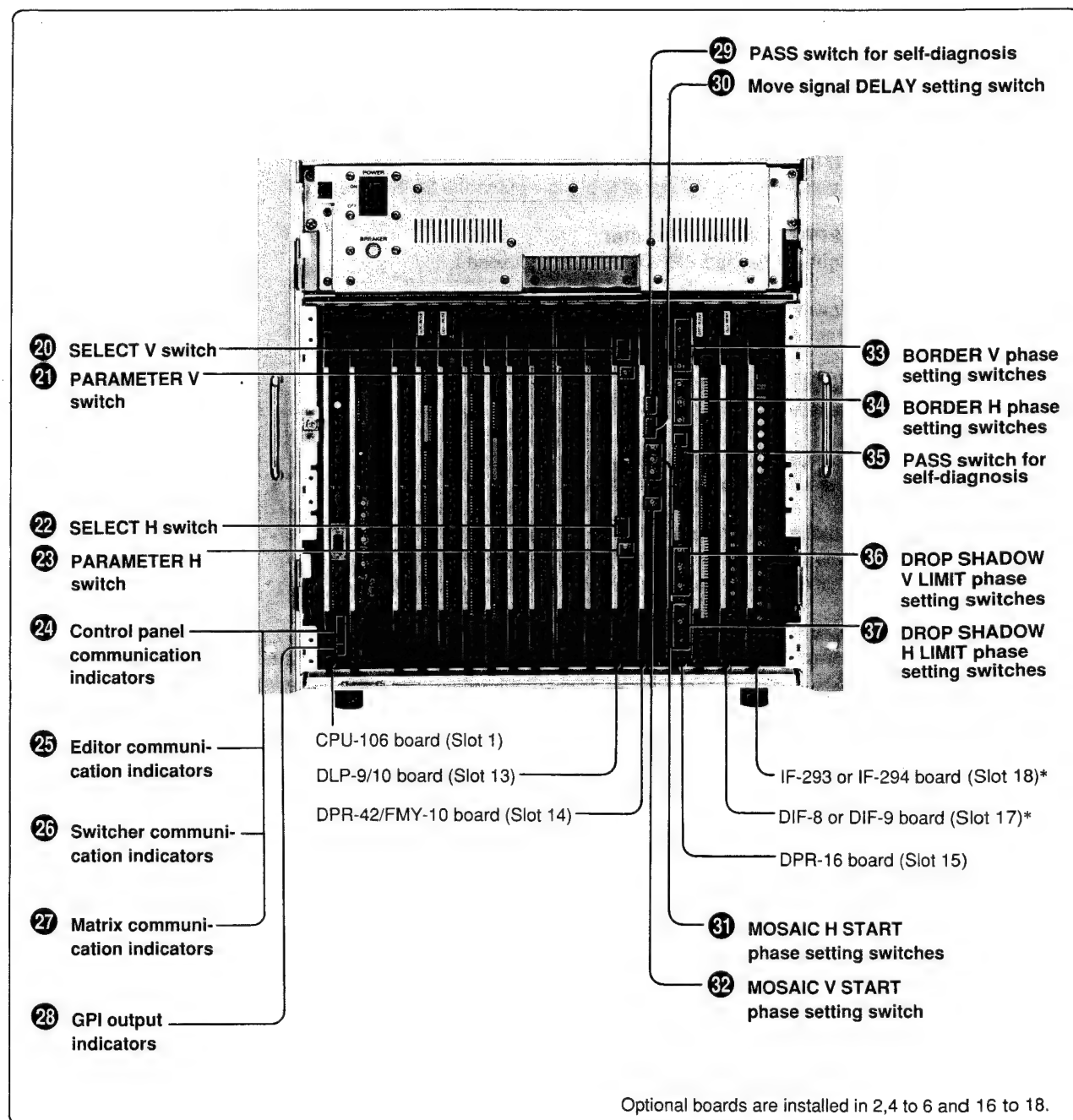
Door handles

Interior



- 1 POWER switch**
Powers the unit on and off.
- 2 BREAKER button**
If an excess current flows in the unit, this button jumps out to cut off the power supply automatically.
- 3 Main CPU status indicators**
These indicators are not used.
- 4 POWER ON indicator**
Lights while DME-5000 is turned on.
- 5 Status indicators**
These indicators are used for self-diagnosis.
They flash sequentially when the system is operating normally.
Should there be an error in the system, the indicators will light, in a combination that depends on the error.

- 6 Main CPU RUN indicator**
Lights while the main CPU is operating normally.
- 7 Sub CPU RUN indicator**
Lights while the sub CPU is operating normally.
- 8 VD indicator**
Lights while the VD signal is being input to the DME-5000.
- 9 EEPROM access indicator**
Lights while the EEPROM is being accessed.
- 10 Power fail adjustment control**
This control is not used.
- 11 RESET switch**
Resets the CPU.
- 12 Sub CPU status indicators**
These indicators are not used.
- 13 Auxiliary connector (D-SUB 9 pin)**
This connector is for use by Sony service personnel only.
This connector complies with the RS-232C standard.
- 14 DME UNIT NO. SELECT switch**
Assigns a physical channel to each DME-5000 when two or more DME-5000 units are used. For details of channel assignment, refer to "3-7. Setting select switches/Setting at shipment".
- 15 MODE SELECT switch**
Sets the mode such as 525- or 625-line system. For details of the setting, refer to "3-7. Setting select switches/Setting at shipment".
- 16 MODE selector switch**
Consists of two bits used to change the operation modes of the unit as follows:
Bit 1: ON = D2 mode, OFF = D1 mode
Bit 2: ON = 525 mode, OFF = 625 mode
- 17 MODE selector switch**
Consists of two bits used to change the operation modes of the unit as follows:
Bit 1: ON = D1 mode, OFF = D2 mode
Bit 2: ON = 625 mode, OFF = 525 mode
- 18 PASS switch for self-diagnosis**
Setting bit 1 of this switch to ON causes the internal operation of the DPR-18/18(A) and ALU-11/12/13 boards to be entirely skipped. Keep the bit 1 set to OFF except when carrying out self-diagnostic testing of the unit.
- 19 PASS switch for self-diagnosis**
Setting bit 1 of this switch to ON causes the internal operation of the MEM-41/41(A) board to be skipped. Keep bit 1 set to OFF except when carrying out self-diagnostic testing of the unit.



* These are optional boards, but since they are video I/O interfaces, this unit will not operate without them. For details, see "Optional boards" on page 1-11 (E) and the operation and maintenance manuals for the respective boards.

20 SELECT V (vertical filter parameter) switch

Four bits, 1 to 4 from the top down, used to set vertical filter parameters as follows:

- Bit 1: Turns on/off the DEFOCUS circuit.
- Bit 2: Switches the parameter setting mode between manual and automatic.
- Bit 3: Selects the parameter setting range of 0-15 steps or 16-31 steps for manual setting mode.
- Bit 4: Reserved for future use.

21 PARAMETER V (vertical filter constant) switch

Sets the vertical filter constant to be applied when the manual setting mode is selected with bit 2 of the SELECT V switch 20. You can select one of the 16 settings 0-15 or 16-31 depending on the setting of bit 3 of the SELECT V switch 20.

22 SELECT H (horizontal filter parameter) switch

Six bits, 1 to 6 from the top down, used to set horizontal filter parameters as follows:

- Bit 1: Turns the Y-filter bypass on or off.
- Bit 2: Turns the C-filter bypass on or off.
- Bit 3: Turns the K-filter bypass on or off.
- Bit 4: Switches the parameter setting mode between manual and automatic.
- Bits 5 and 6: When the manual setting mode is selected, these two bits are used in combination to select one of the four setting ranges of the PARAMETER H switch 23 as shown in the table below.

Bit 5	Bit 6	Setting range
OFF	OFF	0-15
ON	OFF	16-31
OFF	ON	32-47
ON	ON	48-63

23 PARAMETER H (horizontal filter constant) switch

Sets the horizontal filter constant to be applied when the manual setting mode is selected with bit 4 of the SELECT H switch 22. You can select one of the 16 settings 0-15, 16-31, 32-47, or 48-63 depending on the settings of bits 5 and 6 of the SELECT H switch 22.

Indicators 24 to 27 allow you to check the communication with connected peripheral equipment. The indicators are paired. The upper indicator lights while the DME-5000 is transmitting a signal. The lower indicator lights while the DME-5000 is receiving a signal.

24 Control panel communication indicators

Show the status of communication with the control panel connected to the CONTROL PANEL connector.

25 Editor communication indicators

Show the status of communication with the editing control system connected to the EDITOR connector.

26 Switcher communication indicators

Show the status of communication with the digital video switcher connected to the SWITCHER connector.

27 Matrix communication indicators

Show the status of communication with the external matrix switcher connected to the MATRIX connector.

28 GPI output indicators

Light while trigger signals are being output from the GPI connector.

- 29 PASS switch for self-diagnosis**
 Setting bits 1 to 3 of this switch to ON causes the Y, C, and K video signal circuits to be skipped, respectively. Keep the three bits set to OFF except when carrying out self-diagnostic testing.
- 30 Move signal DELAY setting switch**
 Sets the move signal delay. This switch is for use by Sony service personnel only.
- 31 MOSAIC H (horizontal) START phase setting switches**
 These three switches are used to set the phase of the horizontal start address for mosaic effect generation. The switches are arranged vertically, with the most significant bit at the top (2-4-4 bits). Change the settings of these switches when switching the operating mode. (See page 1-2(E).)
- 32 MOSAIC V (vertical) START phase setting switch**
 Sets the delay (0H to 15H) for the vertical start address for mosaic effect generation. This switch is for use by Sony service personnel.
- 33 BORDER V (vertical) phase setting switches**
 These three switches are used to set the vertical phase of the added border. The switches are arranged vertically, with the most significant bit at the top (1-4-4 bits). Change the settings of these switches when switching the operating mode. (See page 1-2(E).)
- 34 BORDER H (horizontal) phase setting switches**
 These three switches are used to set the horizontal phase of the additional border. The switches are arranged vertically, with the most significant bit at the top (2-4-4 bits). Change the settings of these switches when switching the operating mode. (See page 1-2(E).)
- 35 PASS switch for self-diagnosis**
 Setting bits 1 to 3 of this switch to ON causes the K, C and Y video signal circuits to be skipped, respectively. Keep the three bits set to OFF except when carrying out self-diagnostic testing.
- 36 DROP SHADOW V (vertical) LIMIT phase setting switches**
 These three switches are used to set the vertical phase for the limiters to prevent overflows at the top and bottom ends of the drop shadow. Of these switches arranged vertically, the top one is for setting the highest-order bit of the phase data, the second one for setting the next four bits, and the bottom one for setting the low-order four bits. Change the settings of these switches when switching the operating mode. (See page 1-2(E).)
- 37 DROP SHADOW H (horizontal) LIMIT phase setting switches**
 These three switches are used to set the horizontal phase for the limiters to prevent overflows at the top and bottom ends of the drop shadow. The switches are arranged vertically, with the most significant bit at the top (2-4-4 bits). Change the settings of these switches when switching the operating mode. (See page 1-2(E).)

Optional boards

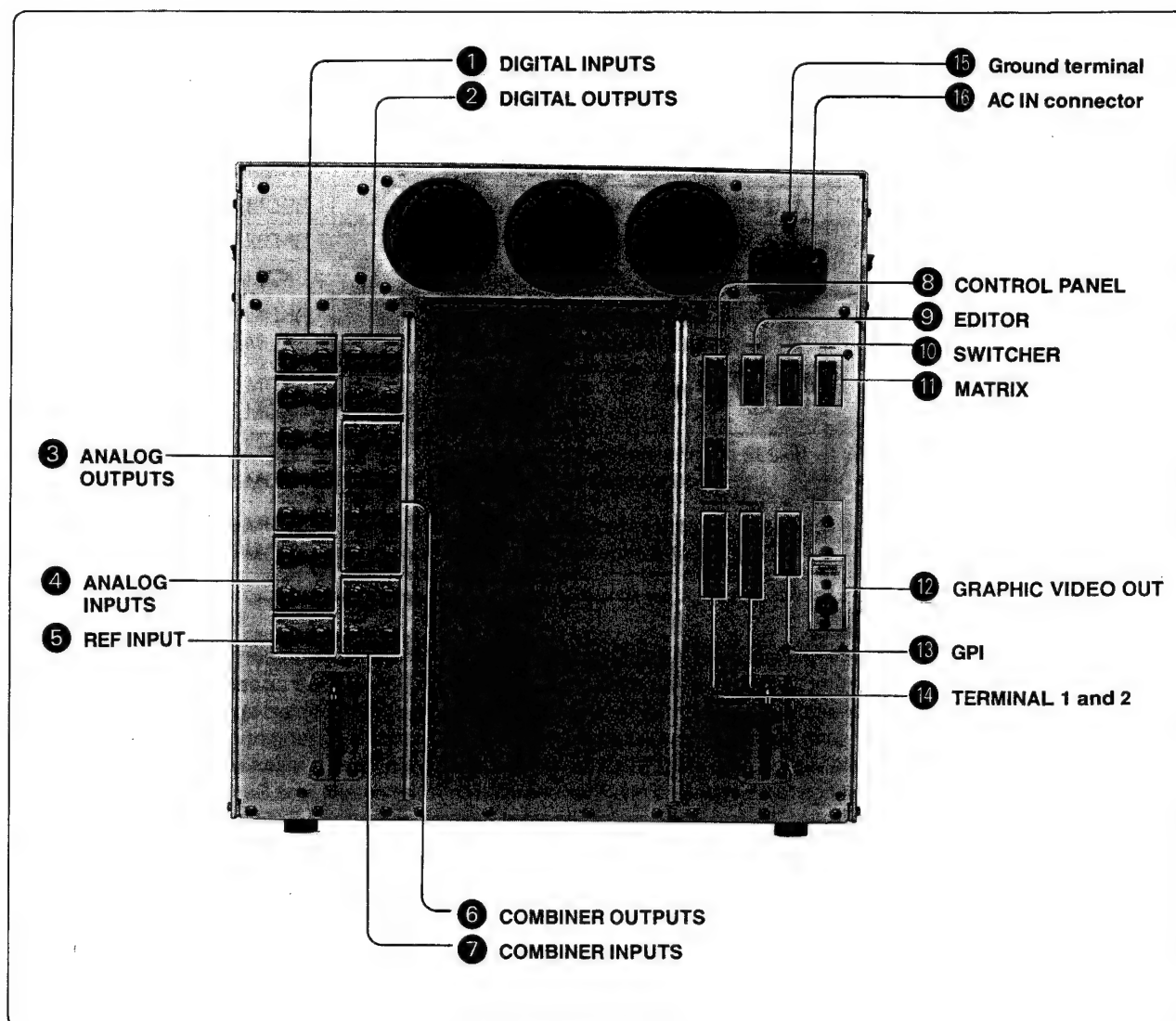
The following table gives the names and types of optional boards available, and the slot numbers of the circuit board slots reserved for them.

Slot No.	Board Name	Supplied as
2	DSC-58 graphic display board	BKDM-5060
4	ALU-14 lighting wipe effects board	BKDM-5040
5	ALU-13 non-linear effects board	BKDM-5030
6	ALU-12 non-linear effects board	BKDM-5030
16	DLP-12 D2 digital combiner board	BKDM-5020
	DLP-11 D1 digital combiner board	BKDM-5021
17	DIF-8 composite input/output board digital composite in/out board	BKDM-5010 BKDM-5012
	DIF-9 component input/output board digital component input/output board	BKDM-5011 BKDM-5013
18	IF-293 composite input/output board digital composite in/out board	BKDM-5010 BKDM-5012
	IF-294 component input/output board digital component input/output board	BKDM-5011 BKDM-5013

Notes

- You must install an appropriate I/O board in both the slot numbers 17 and 18, otherwise neither this unit nor the control panel (BKDM-5070) will ever operate.
- For each of the slot numbers 16 to 18, select the optional board appropriate for the system. You can change between D1 and D2 modes by changing the optional boards installed in these slots. In some cases a change in the operation mode may require settings to be changed on other boards. For more details, see Section 1-1-2 "Board Selection/Switch Settings for Different Modes" on pages 1-2(E) and 1-3(E)

1-2-2. Connectors on the Rear Panel



- 1 DIGITAL INPUTS (BNC)**
Input the serial digital video and key signals. When the phase difference between the input signals and the reference signal input from the REF INPUT connectors **5** is in a range of $-0.9H$ to $+0.1H$, the input signal phase is adjusted automatically.
Using these connectors requires the BKDM-5010/5011/5012/5013 optional board.
- 2 DIGITAL OUTPUTS (BNC)**
Output the serial digital video and key signals. The connectors for channels 1 and 2 (CH1 and CH2) output the same signals.
Using these connectors requires the BKDM-5010/5011/5012/5013 optional board.
- 3 ANALOG OUTPUTS (BNC)**
Output the analog video and key signals. The connectors for channels 1 and 2 (CH1 and CH2) output the same signals.
Using these connectors requires the BKDM-5010/5011 optional board. Specifically the R-Y and B-Y connectors can be used only when the BKDM-5011 optional board is installed in the unit.
- 4 ANALOG INPUTS (BNC)**
Input the serial digital video and key signals.
Using these connectors requires the BKDM-5010/5011 optional board. Specifically the R-Y and B-Y connectors can be used only when the BKDM-5011 optional board is installed in the unit.
- 5 REF INPUT (reference video input) (BNC)**
A pair of loop-through connectors used to input the analog reference video signal. The signal input to one of these connectors may be output from the other. When you use only one of them, be sure to terminate the other one with a 75-ohm terminator.
- 6 COMBINER OUTPUTS (BNC)**
Output the serial digital signals to combine the image produced by the unit and those produced by other DME-5000 units. In D1 (component) format, VIDEO and KEYZ are used. In D2 (composite) format, Y, C, KEY, and Z are used. The connectors for channels 1 and 2 (CH1 and CH2) output the same signals.
Using these connectors requires the BKDM-5020/5021 optional board.
- 7 COMBINER INPUTS (BNC)**
Input the serial digital signals to combine the image produced by the unit and those produced by other DME-5000 units. The combined image is output from the COMBINER OUTPUTS connector **6**. In D1 (component) format, VIDEO and KEYZ are used. In D2 (composite) format, Y, C, KEY, and Z are used. The connectors for channels 1 and 2 (CH1 and CH2) output the same signals.
Using these connectors requires the BKDM-5020/5021 optional board.
- 8 CONTROL PANEL (D-SUB 9-pin)**
A pair of loop-through connectors for connection to the BKDS-8010 or BKDM-5070 optional control panel. You may control up to four DME-5000 units using their loop-through CONTROL PANEL connectors from the same external control panel. These connectors comply with the RS-422A standard.
- 9 EDITOR (D-SUB 9-pin)**
This connector is used for connection to external equipment such as the BVE-9000 editing control system, from which you can control the unit. This connector complies with the RS-422A standard.

10 SWITCHER (D-SUB 9-pin)

If you connect this connector to the DVS-8000/8000C digital video switcher, one of the four internal auxiliary buses (AUX 1 to 4) of the switcher can be controlled by this unit.

11 MATRIX (D-SUB 9-pin)

If you connect this connector to an external matrix switcher, you can use the matrix switcher to switch the signal to be input to the unit.

12 GRAPHIC VIDEO OUT (BNC)

Outputs the analog video signal (monochrome) for input to a video monitor. Using this connector requires the BKDM-5060 optional board.

13 GPI (general purpose I/O) (D-SUB 15-pin)

Used to input or output trigger signals (up to four each for input and output) from or to external equipment. You may set the conditions for inputting or outputting each trigger signal.

14 TERMINAL 1 and 2 (D-SUB 25-pin)

Connect these connectors to appropriate control terminals when required to initialize or inspect the unit.

15 Ground terminal

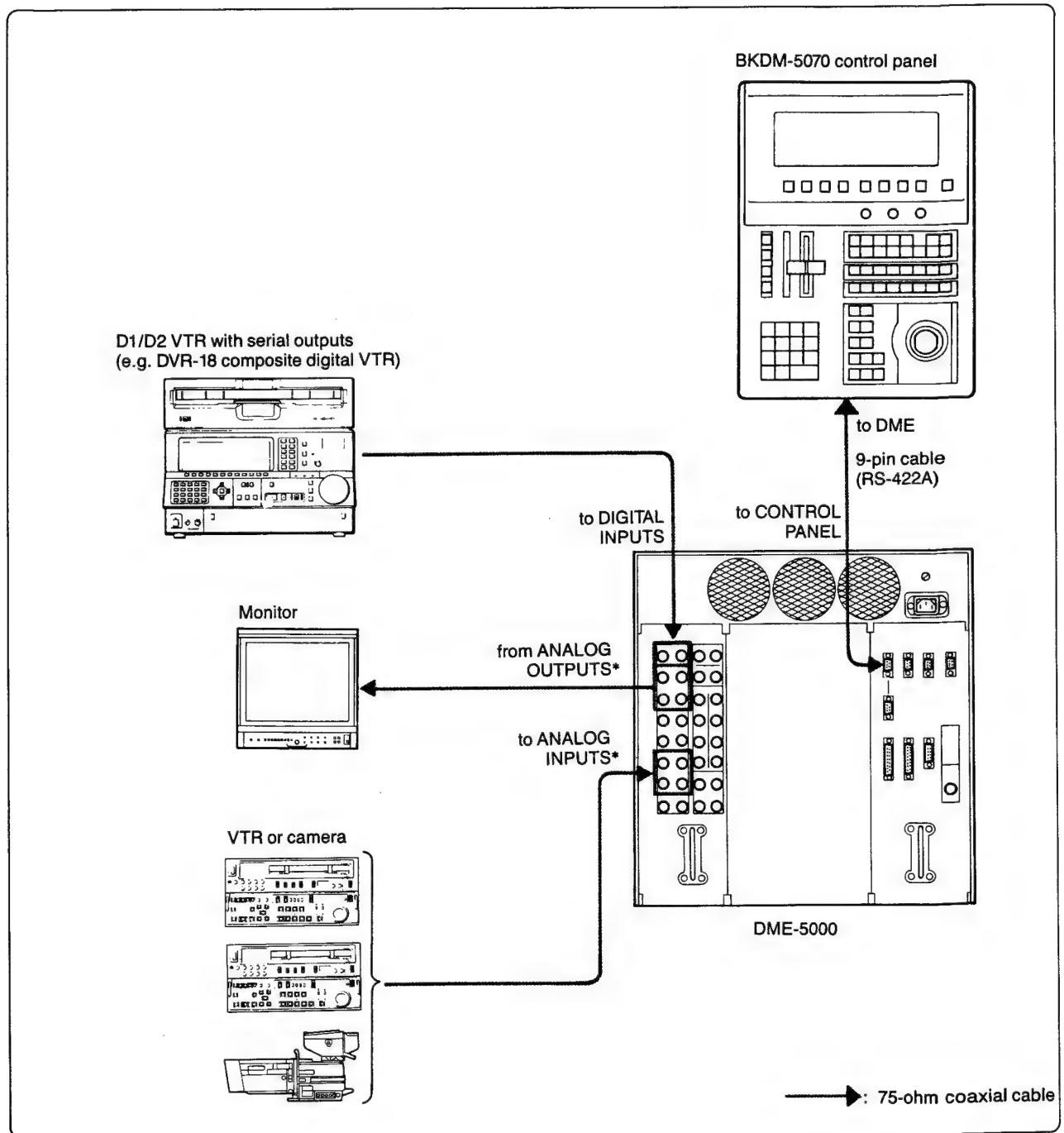
Use this terminal to ground the system.

16 AC IN

Connect this connector to an appropriate AC power supply using the power supply cord supplied.

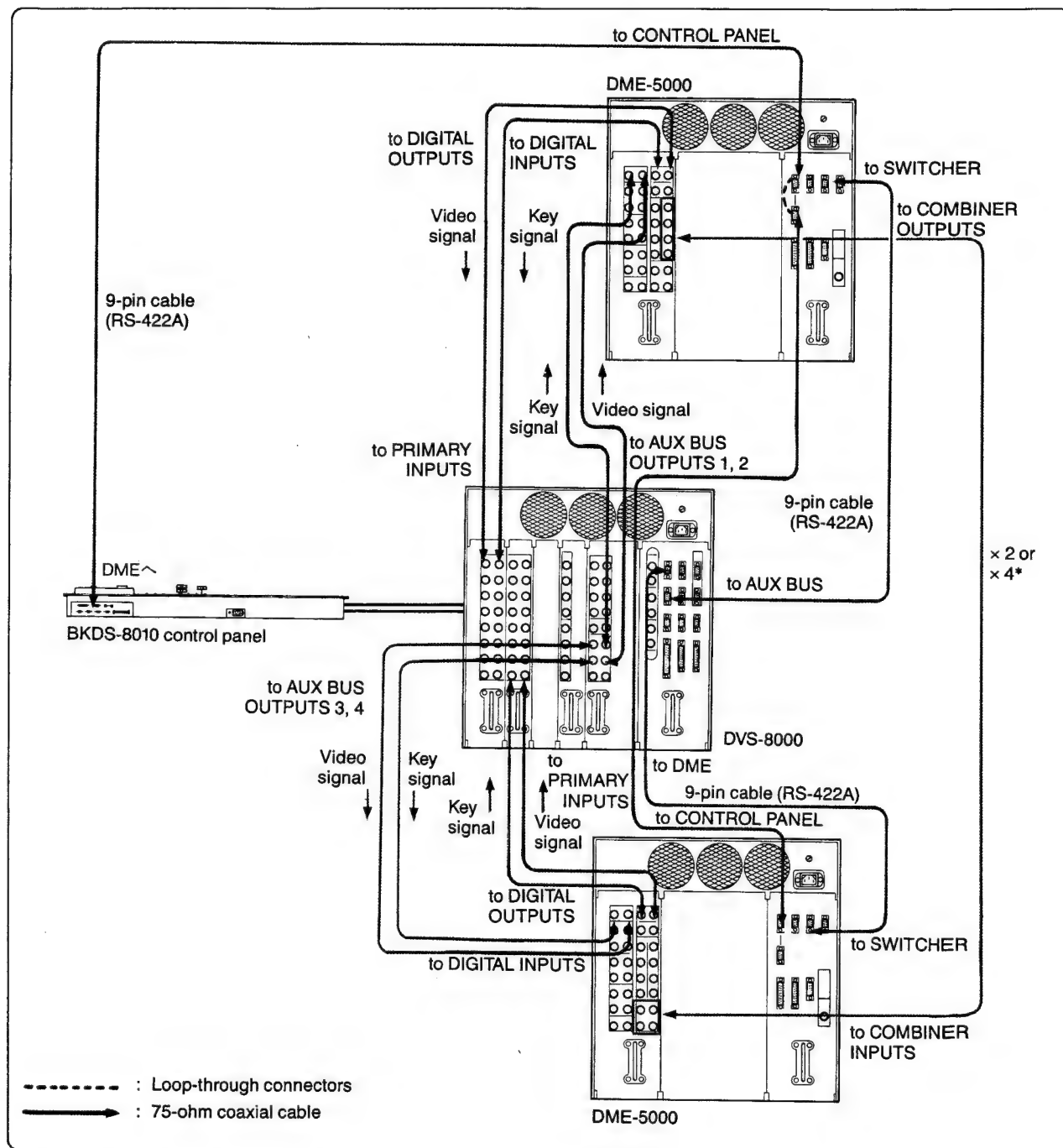
1-3. System Connections

1-3-1. Connection with Dedicated Control Panel and I/O Equipment



* Use Y, R-Y, B-Y, and KEY to input/output component signals, or VIDEO and KEY to input composite signals.

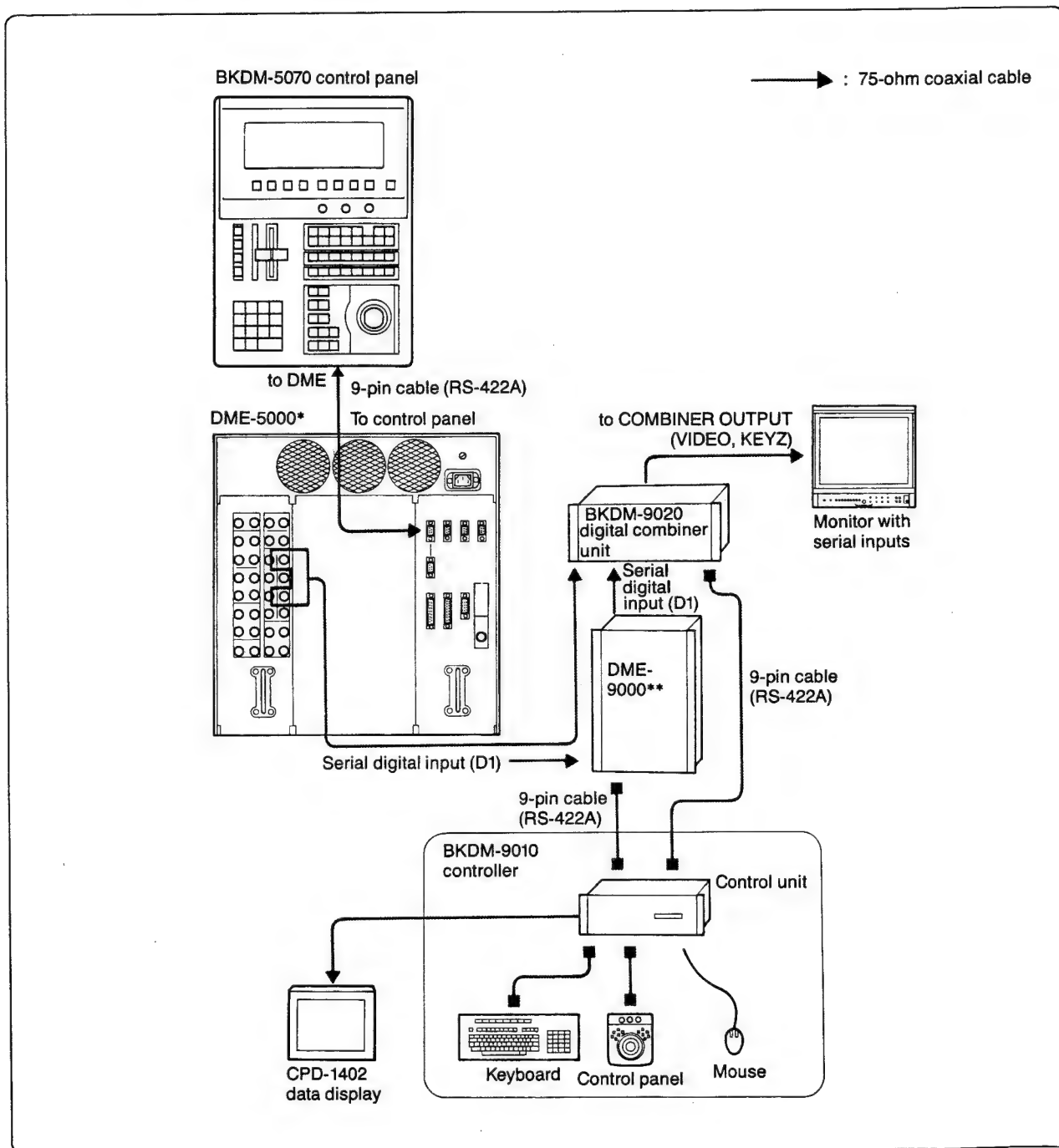
1-3-2. Connection with DVS-8000/8000C Digital Video Switcher



* For D1 mode: Connect COMBINER OUTPUTS (VIDEO and KEYZ) and COMBINER INPUTS (VIDEO and KEYZ) with 2 cables.

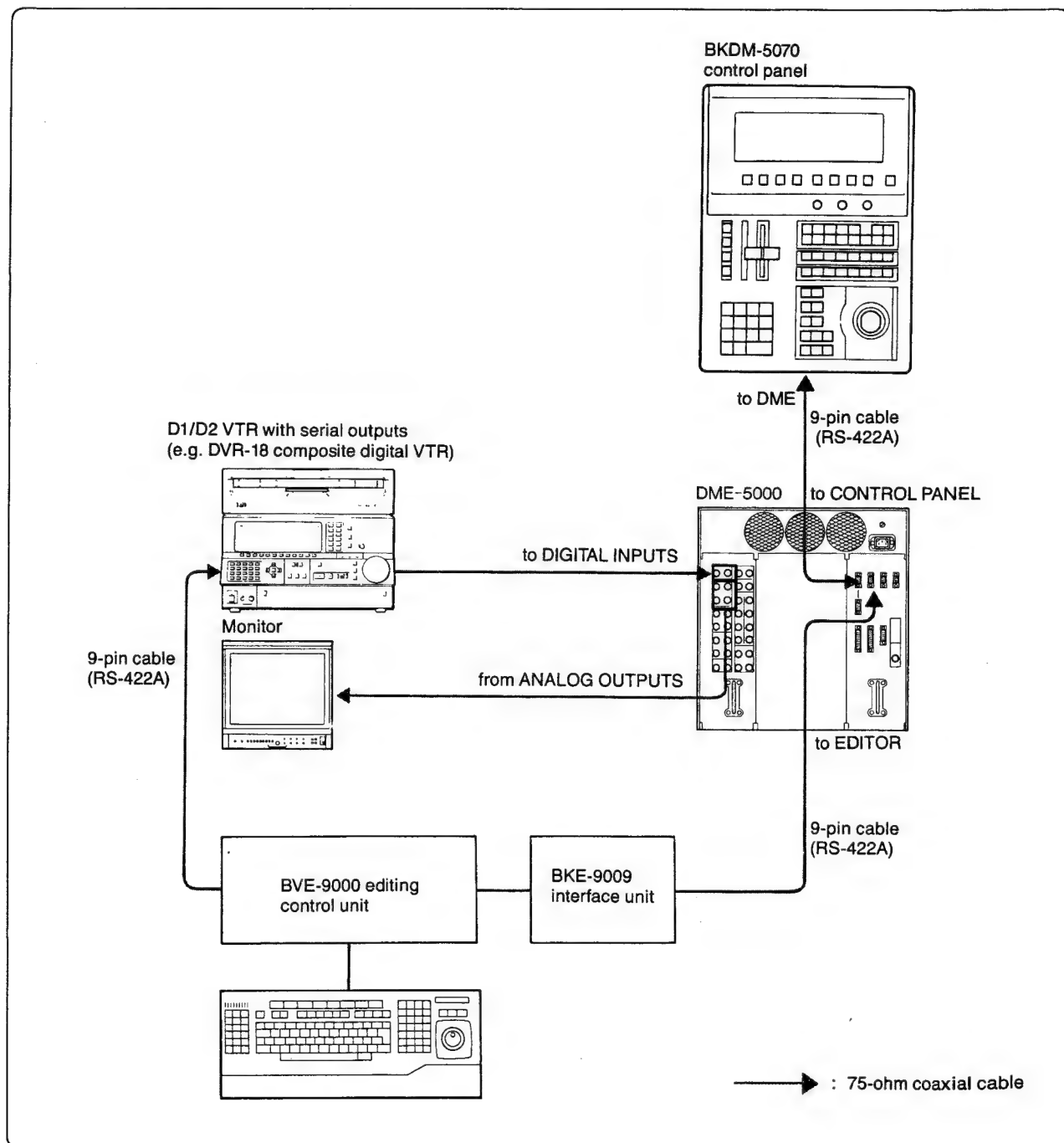
For D2 mode: Connect COMBINER OUTPUTS (Y, C, KEY, and Z) and COMBINER INPUTS (Y, C, KEY, and Z) with 4 cables.

1-3-3. Connection with DME-9000 Digital Multi Effects (for D1 mode)

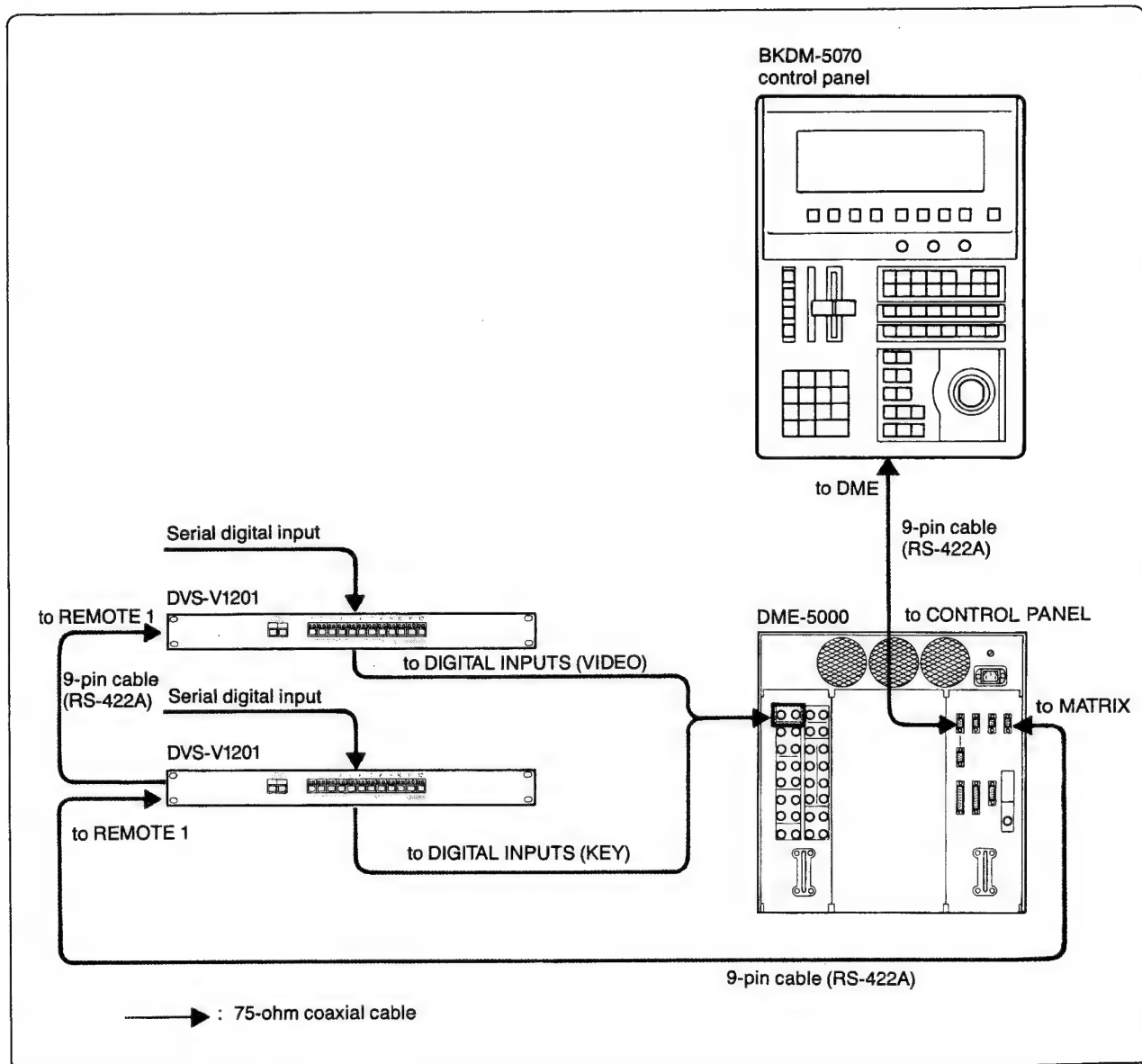


* The DME-5000 requires the BKDM-5021 optional board.
 ** The DME-9000 requires the BKDM-9023 optional board.

1-3-4. Connection with BVE-9000 Editing Control System



1-3-5. Connection with DVS-V1201 Digital Video Routing Switcher



1-4. Specifications

General

Power requirements	85-132/170-265 V AC switched automatically
Power consumption	Approx. 500 W (with full options)
Temperature	
Storage	- 20°C to + 55°C (- 4°F to + 131°F)
Operating	5°C to 40°C (41°F to 104°F)
Operating within specifications	10°C to 35°C (50°F to 95°F)
Humidity	
Operating	80% RH or lower
Operating within specifications	70% RH or lower
Dimensions (w/h/d)	424 × 443 × 450 mm, excluding projections (16¾ × 17½ × 17¾ inches)
Weight	50 kg (110 lb 4 oz)

I/O connectors

DIGITAL INPUTS	<p>Component</p> <p> VIDEO For serial digital input signal, BNC (× 1), 75 ohms</p> <p> KEY For serial digital input signal, BNC (× 1), 75 ohms</p> <p>Composite</p> <p> VIDEO For serial digital input signal, BNC (× 1), 75 ohms</p> <p> KEY For serial digital input signal, BNC (× 1), 75 ohms</p>
DIGITAL OUTPUTS	<p>Component</p> <p> VIDEO For serial digital output signal, BNC (× 2), 75 ohms</p> <p> KEY For serial digital output signal, BNC (× 2), 75 ohms</p> <p>Composite</p> <p> VIDEO For serial digital output signal, BNC (× 2), 75 ohms</p> <p> KEY For serial digital output signal, BNC (× 2), 75 ohms</p>
ANALOG INPUTS	<p>Component</p> <p> Y, R-Y, B-Y, KEY</p> <p> For Betacam or SMPTE component input signal, BNC (× 4)</p> <p>Composite</p> <p> VIDEO For analog composite input signal, BNC (× 1)</p> <p> KEY VS: 1 Vp-p, BNC (× 1)</p>
ANALOG OUTPUTS	<p>Component</p> <p> Y, R-Y, B-Y, KEY</p> <p> For Betacam or SMPTE component output signal, (with SYNC added to Y only), BNC (× 8)</p> <p>Composite</p> <p> VIDEO For analog composite output signal, BNC (× 2)</p> <p> KEY VS: 1 Vp-p, BNC (× 2)</p>
REF INPUT	<p>Component</p> <p> For analog reference input signal, BNC (× 2)</p> <p> Black burst or composite sync</p> <p> Hi-z loop-through</p> <p>Composite</p> <p> For analog reference video input signal, BNC (× 2)</p> <p> Black burst</p> <p> Hi-z loop-through</p>

COMBINER INPUTS	Component VIDEO, KEYZ For serial digital input signal, BNC (× 2)
	Composite Y, C, KEY, Z For serial digital input signal, BNC (× 4)
COMBINER OUTPUTS	Component VIDEO, KEYZ For serial digital output signal, BNC (× 4)
	Composite Y, C, KEY, Z For serial digital output signal, BNC (× 8)
GRAPHIC VIDEO OUT	For analog video (monochrome) output signal, BNC (× 1)

Remote control signals

CONTROL PANEL	Complying with RS-422A standard (D-SUB 9-pin)
EDITOR	Complying with RS-422A standard (D-SUB 9-pin)
SWITCHER	Complying with RS-422A standard (D-SUB 9-pin)
MATRIX	Complying with RS-422A standard (D-SUB 9-pin)
TERMINAL 1	Complying with RS-232C standard (D-SUB 25-pin)
TERMINAL 2	Complying with RS-232C standard (D-SUB 25-pin)
GPI	4 inputs and 4 outputs, programmable (D-SUB 15-pin)

Performance

Composite Linearity	DG: 2% max. DP: 2° max. (RAMP signal superimposed with 40-IRE subcarrier)
	Frequency response ± 0.25 dB, 200 kHz to 4.2 MHz
Pulse characteristic	K: 1% max., 2T pulse
Signal-to-noise ratio	Over 52 dB
Component Frequency response	Y: +0.5 dB, 200 kHz to 5.5 MHz R-Y/B-Y: +1.0 dB, 200 kHz to 2.5 MHz
	Pulse characteristic K: 1% max., 2T pulse
Signal-to-noise ratio	Over 55 dB

Sampling

Clock	D2 composite: 14.3 MHz D1 component: 13.5 MHz
Quantization	Analog: 9 bits Digital I/O: 10 bits (8 bits in memory)

Input phase difference absorption

Input error range allowable: $-56 \mu\text{s}$ to $+6 \mu\text{s}$ per frame

Acessories supplied

Rack mounting angles (1 set; fitted to the cabinet)
EX-270 extension board (1)
AC power cord (1)
Plug adapter for AC power cord (1)
75-ohm terminator (1)
Operation and maintenance manual (1)

Recommended equipment

BKDM-5070 control panel for DME-5000
DVS-8000/8000C digital video switcher
BKDS-8010 control panel for DVS-8000/8000C
BVE-9000 editing control system

Optional circuit boards

BKDM-5010 composite input/output board
BKDM-5011 component input/output board
BKDM-5012 digital composite in/out board
BKDM-5013 digital component input/output board
BKDM-5020 D2 digital combiner board
BKDM-5021 D1 digital combiner board
BKDM-5030 nonlinear effects board
BKDM-5040 lighting wipe effects board
BKDM-5060 graphic display board

Design and specifications are subject to change without notice.

Chapitre 1. EXPLOITATION

1-1. Aperçu

Le générateur d'effets numériques multiples DME-5000 produit des images de haute qualité par traitement entièrement numérique. Il peut se contrôler à partir d'un panneau de contrôle BKDM-5070, ou être opéré avec un système de commutateur vidéo numérique DVS-8000/8000C, et contrôlé du même panneau de contrôle BKDS-8010 que ce système.

1-1-1. Caractéristiques principales

E/S numérique série

Cet appareil utilise une E/S numérique série pour toutes les connexions, dont chacune n'exige qu'un seul câble coaxial. Comparé aux interfaces parallèles conventionnelles, cela réduit les connexions d'installation et l'absence d'erreurs de réglage de biais augmente la fiabilité et permet une transmission sur une distance plus longue.

Compatible à la fois avec les formats composite et composant

Les quatre cartes d'E/S (BKDM-5010/5011/5012/5013) disponibles rendent cet appareil compatible avec toutes les combinaisons de format composant et composite, numérique et analogique. Quand l'appareil est raccordé à un système déjà installé, sélectionner la carte d'E/S en option adaptée au commutateur utilisé.

Exploitation intégrée à un système de commutateur série DVS-8000

Le DME-5000 peut se raccorder à un système de commutateur DVS-8000/8000C, et les deux appareils peuvent se contrôler depuis un seul panneau de contrôle. Le système intégré ainsi constitué, fonctionne entièrement en mode numérique, et fournit une image parfaite. La fonction DME LINK (R) de haut niveau assiste des effets, tels que fondu effacé DME, qui combinent effets vidéo au fondu effacé du commutateur.

Exploitation concurrente multicanal

Deux à quatre DME-5000 peuvent être connectés, et un seul panneau de contrôle peut contrôler quatre canaux maximum simultanément, ou un seul canal sélectionné.

Combinaison d'image

Il est possible de connecter deux DME-5000 ou plus équipés d'une carte de combineur numérique BKDM-5020/5021, et de combiner jusqu'à quatre canaux en une seule image. Cette fonction de combinaison utilise des signaux spéciaux contenant des informations sur le relief, qui permettent d'obtenir des effets très réalistes, où les images peuvent être manipulées de manière tridimensionnelle.

Commutation automatique entre traitement de cadre et de trame

Le détecteur de déplacement commute automatiquement entre le mode cadre pour le traitement cadre par cadre, et le mode trame pour le traitement trame par trame, selon le déplacement de l'image. Chaque cadre d'information d'image traité en mode cadre est équivalent à deux trames d'information d'image, de sorte que le mode cadre garantit la non-dégradation de la qualité de l'image. Le mode cadre permet un traitement plus précis que le mode trame pour réaliser une nouvelle image à partir de ces effets. Toutefois, le mode trame sera mieux adapté que le mode cadre pour traiter l'image de manière à obtenir un mouvement naturel et régulier.

1-1-2. Sélection de carte/réglages de sélecteur pour les différents modes

Cet appareil peut fonctionner en trois modes: D2 (NTSC), D1 (525) et D1 (625), selon le format du signal utilisé. Ces trois modes exigent différents réglages de sélecteurs et différentes cartes (à la fois standard et optionnelles).

Vérifier les cartes insérées et le réglage des sélecteurs des cartes lors de la modification du système ou à l'addition d'options.

Réglage des sélecteurs

Le tableau suivant indique le réglage des sélecteurs à effectuer selon le mode d'exploitation.

Voir la Section 1-2-1 "Panneau avant et intérieur" aux pages 1-5(E) à 1-12(E) pour la localisation et les fonctions des trois premiers sélecteurs (items n° 1 à 3 et 5) figurant dans le tableau.

Voir la Section 9 "CARTES DE CIRCUITS IMPRIMES" pour la localisation des trois derniers sélecteurs (items n° 4 et 7 à 9). Ces sélecteurs sont indiqués par S3, S5 et S6 sur les différentes cartes.

Item n°.	Nom de la carte	Bom du sélecteur/ n° de bit	Mode/réglage (1:ON, 0:OFF)		
			D2 (NTSC)	D1 (525)	D1 (625)
1	DPR-42	S2-S4(MOSAIC H START)*	EAE	EAD	EAD
2	DPR-16	S1-S6 (BORDER V/H)*	FF4FBA	FF5FC0	FEEFBE
3	DPR-16	S8-S13* (DROP SHADOW V/H LIMIT)	EFFC76h	EFFC8C6h	ED28ADh
4	DPR-16	COR3	xx00x	xx00x	x0xx0
5	DPR-17	S7 (MODE)	11	01	00
6	DPR-18	S2 (MODE)	00	10	11
7	CPU-106	S3, bits 1 et 2 **	01*****	00*****	10*****
8	DLP-10	S5, bits 1 à 8	10010001	10101010	11011010
9	DLP-10	S6, bits 1 à 8	01010001	01101010	00111010
10	DSC-58 (BKDM-5060)	COR8	○	○	×

Réglage de COR (○: "open", ×: "short")

* L'ajustement requis pour ces réglages dépend des cartes optionnelles installées dans l'appareil. Consulter son représentant Sony agréé pour les détails.

** Ne pas modifier le réglage des bits 3 à 8.

Cartes standard

Les cartes standard utilisées sur cet appareil sont les mêmes pour les trois modes d'exploitation, sauf celles insérées dans les logements suivants, qui varient selon le mode utilisé.

Logement n°	Mode/nom de la carte		
	D2 (NTSC)	D1 (525)	D1 (625)
8	DPR-18		DPR-18 (A)
10 à 12	MEM-41		MEM-41 (A)

Options

Le tableau suivant donne la liste des options disponibles. Comme il le montre, certaines options exigent des cartes différentes selon le mode D1 et D2.

Nom de option	Mode/type de carte		
	D2 (NTSC)	D1 (525)	D1 (625)
E/S de signal numérique/analogique	BKDM-5010	BKDM-5011	
E/S de signal numérique	BKDM-5012	BKDM-5013	
Combineur numérique	BKDM-5020	BKDM-5021	
Effets non linéaires	BKDM-5030		
Effets de fondu effacé/eclairage	BKDM-5040		
Affichage graphique	BKDM-5060		

1-1-3. Remarques importantes

Manipulation des cartes de circuits

Il devrait normalement être inutile de retirer ou de remplacer les plaquettes. Observer les précautions suivantes pour l'entretien ou l'installation de cartes optionnelles:

- Vérifier que l'interrupteur d'alimentation est désactivé avant l'insertion ou le retrait d'une carte (voir la page 1-6(F)).
- Après l'insertion d'une nouvelle carte, et avant la mise sous tension, vérifier que le numéro de la carte correspond à celui du logement. Voir la Section 3-4 "Installation et retrait des cartes" pour de plus amples détails.

Ces précautions sont importantes pour éviter d'endommager les cartes de circuits.

Disjoncteur

Le disjoncteur s'activera pour couper automatiquement l'alimentation (voir la page 1-6(F)) si une surtension survient dans l'appareil.

Il est possible que le disjoncteur se soit activé si l'appareil n'est pas mis sous tension en appuyant sur l'interrupteur. Dans ce cas, ouvrir le panneau avant et enfoncer la touche BREAKER.

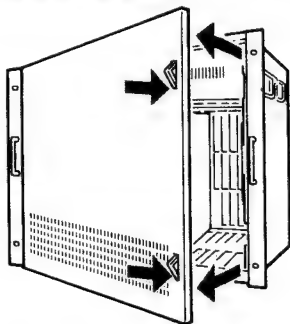
1-2. Localisation et fonction des organes et commandes

1-2-1. Panneau avant et intérieur

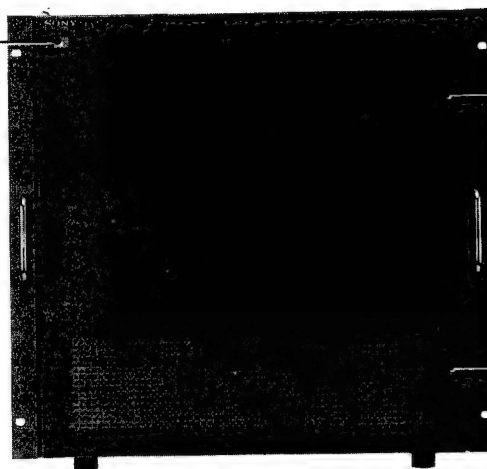
Panneau avant

Ouverture du panneau avant

Appuyer sur l'extrémité des loquets du panneau avant, puis le tirer en avant.

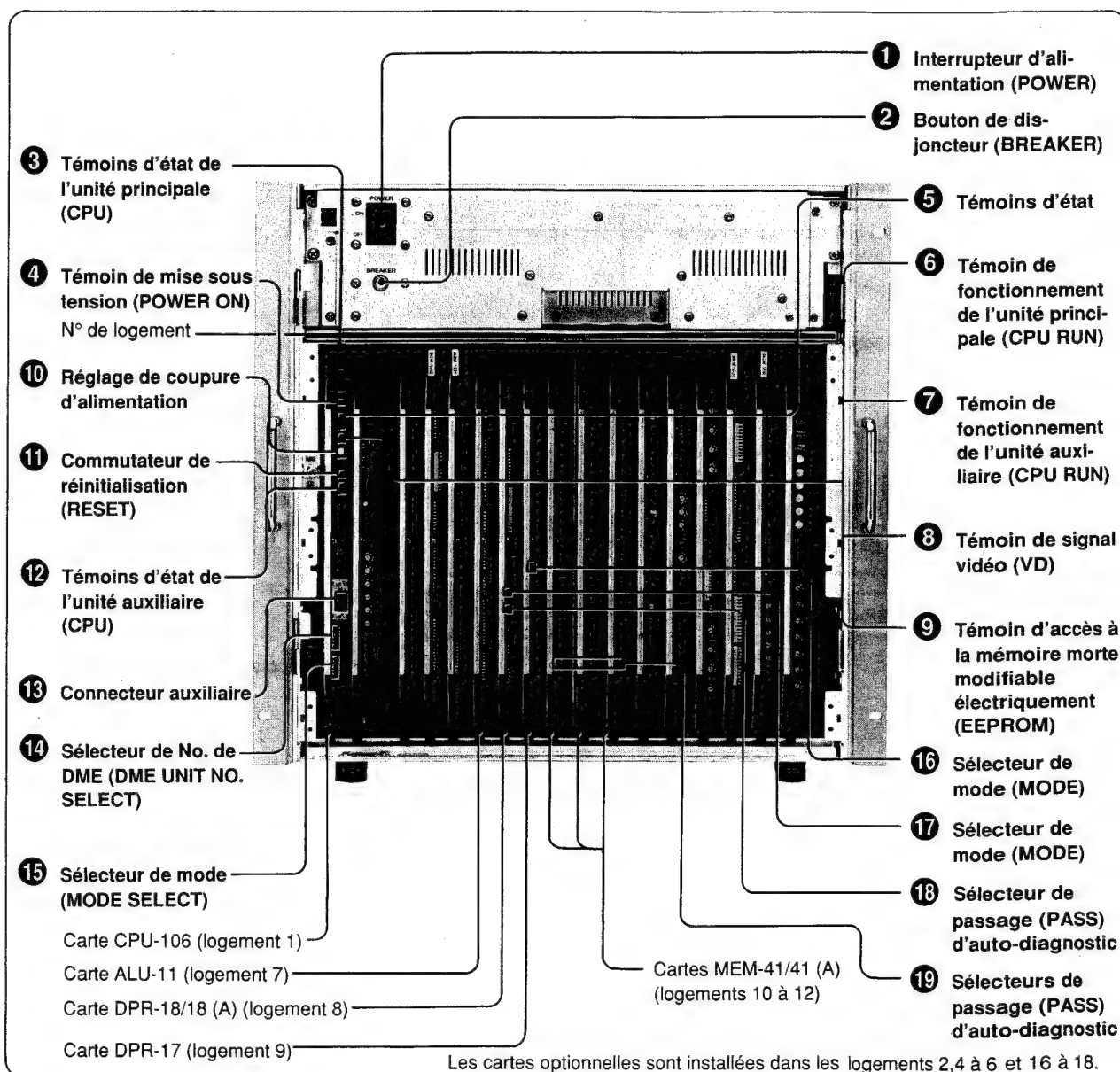


Indicateur POWER



Loquets de panneau avant

Intérieur



- ① Interrupteur d'alimentation (POWER)**
Met l'appareil sous/hors tension.
- ② Bouton de disjoncteur (BREAKER)**
Si une surtension survient dans l'appareil, ce bouton saillit pour couper automatiquement l'alimentation.
- ③ Témoins d'état du CPU principal (CPU)**
Ces témoins ne sont pas utilisés.
- ④ Témoin de mise sous tension (POWER ON)**
IL s'allume lorsque le DME-5000 est mis en service.
- ⑤ Témoins d'état**
Ces témoins sont utilisés pour l'auto-diagnostic.
Ils clignotent les uns après les autres quand le système fonctionne normalement. En cas d'erreur dans le système, il s'allument de différentes manières selon l'erreur.
- ⑥ Témoin de fonctionnement du CPU principal (CPU RUN)**
Il s'allume si le CPU principal fonctionne normalement.
- ⑦ Témoin de fonctionnement du CPU auxiliaire (CPU RUN)**
Il s'allume si le CPU auxiliaire fonctionne normalement.
- ⑧ Témoin de signal vidéo (VD)**
Il s'allume lorsque le signal vidéo est fourni au DME-5000.
- ⑨ Témoin d'accès à la mémoire morte (EEPROM)**
Il s'allume lors de l'accès à la mémoire morte.
- ⑩ Réglage de coupure d'alimentation**
Ce réglage n'est pas utilisé.
- ⑪ Commutateur de réinitialisation (RESET)**
Il permet de réinitialiser l'unité principale de traitement.
- ⑫ Témoins d'état du CPU auxiliaire**
Ces témoins ne sont pas utilisés.
- ⑬ Connecteur auxiliaire (D-SUB à 9 broches)**
Ce connecteur est réservé au personnel de service Sony. Il est conforme à la norme RS-232C.
- ⑭ Sélecteur de numéro de DME (DME UNIT NO. SELECT)**
Il désigne un canal physique à chaque DME-5000 lorsque au moins deux DME-5000 sont en service. Pour les détails au sujet de l'affectation des canaux, reportez-vous à "3-7. Setting select switches/Setting at shipment."
- ⑮ Sélecteur de mode (MODE SELECT)**
Il permet de choisir le mode, soit le système à 525 ou celui à 625 lignes. Pour les détails au sujet du réglage, reportez-vous à "3-7. Setting select switches/Setting at shipment."

16 Sélecteur de mode (MODE)

Comprend deux bits qui servent à modifier le mode d'exploitation comme suit:

Bit 1: ON = mode D2, OFF = mode D1

Bit 2: ON = mode 525, OFF = mode 625

17 Sélecteur de mode (MODE)

Comprend deux bits qui servent à modifier le mode d'exploitation comme suit:

Bit 1: ON = mode D1, OFF = mode D2

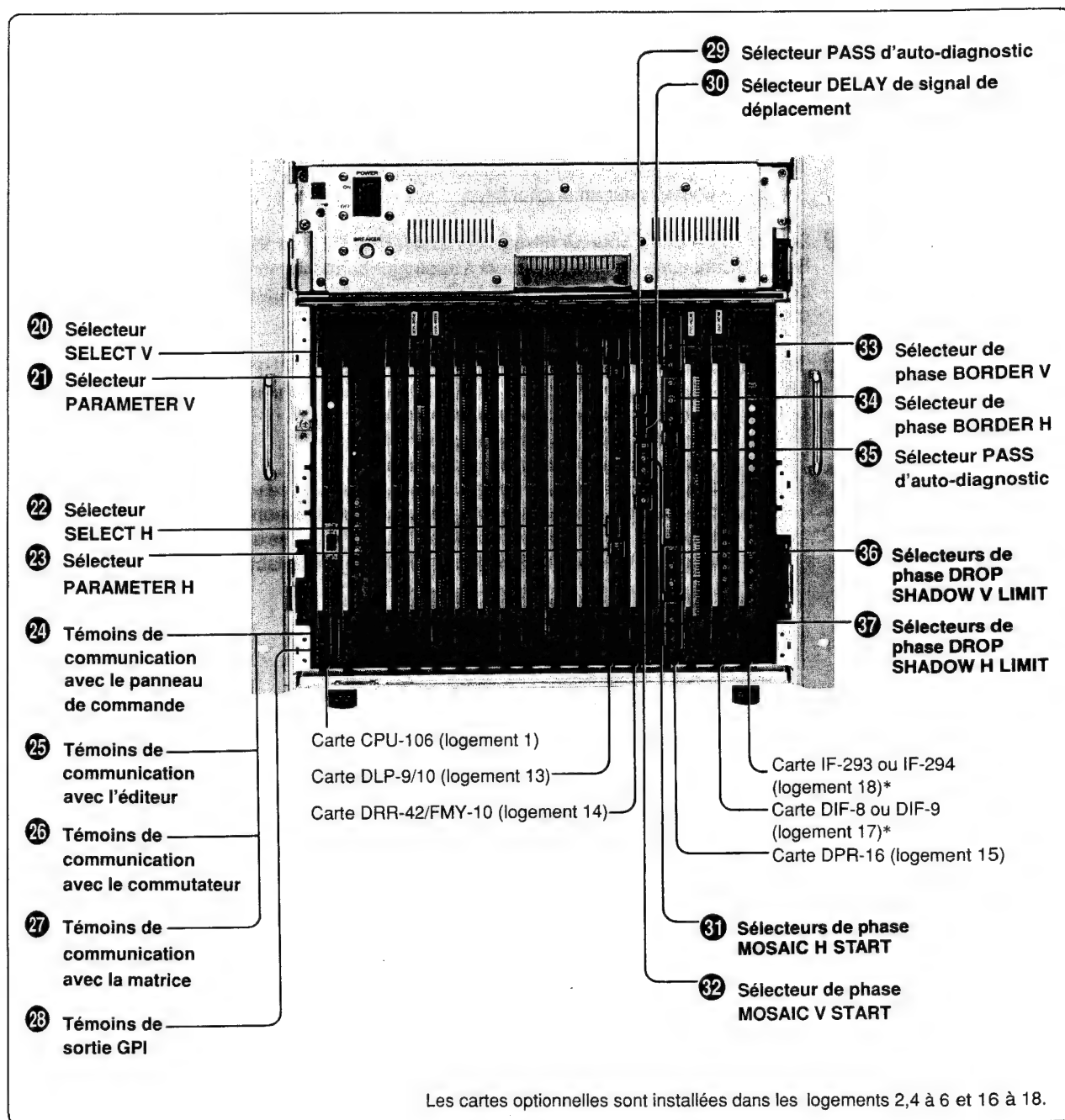
Bit 2: ON = mode 625, OFF = mode 525

18 Sélecteur de passage (PASS) pour l'auto-diagnostic

Le réglage sur ON du bit 1 de ce sélecteur provoque le saut de l'opération interne des cartes DPR-18/18 (A) et ALU-11/12/13. Laisser ce bit sur OFF, sauf lors de l'auto-diagnostic de l'appareil.

19 Sélecteur de passage (PASS) d'auto-diagnostic

Le réglage du bit 1 de ce sélecteur à ON provoque le saut de l'opération interne de la carte MEM-41/41 (A). Laisser ce bit sur OFF, sauf pour l'essai d'auto-diagnostic de l'appareil.



* Ces cartes sont optionnelles, mais l'appareil ne peut pas fonctionner sans elles parce qu'il s'agit d'interfaces d'E/S vidéo. Voir "Cartes optionnelles" à la page 1-12 (F) et les modes d'emploi et d'entretien des différentes cartes pour de plus amples détails.

20 Sélecteur de paramètres de filtrage vertical (SELECT V)

Quatre bits, 1 à 4 de haut en bas, qui servent à sélectionner les paramètres de filtrage vertical comme suit:

- Bit 1: Active/désactive le circuit DEFOCUS.
- Bit 2: Commute le mode de réglage des paramètres entre manuel et automatique.
- Bit 3: Sélectionne la plage de réglage des paramètres entre 0-15 paliers ou 16-31 paliers pour le mode de réglage manuel.
- Bit 4: Réservé pour un emploi futur.

21 Sélecteur de constante de filtrage vertical (PARAMETER V)

Règle la constante de filtrage vertical à appliquer quand le mode de réglage manuel est choisi au bit 2 du sélecteur SELECT V 20. L'un des 16 réglages 0-15 ou 16-31 peut être choisi selon le réglage du bit 3 au sélecteur SELECT V 20.

22 Sélecteur de paramètres de filtrage horizontal (SELECT H)

Six bits, 1 à 6 de haut en bas, qui servent à régler les paramètres de filtrage horizontal:

- Bit 1: Active/désactive la dérivation de filtre Y.
- Bit 2: Active/désactive la dérivation de filtre C.
- Bit 3: Active/désactive la dérivation de filtre K.
- Bit 4: Commute le mode de réglage des paramètres entre manuel et automatique.
- Bits 5 et 6: Quand le mode de réglage manuel est sélectionné, ces deux bits sont utilisés en combinaison pour sélectionner l'une des quatre plages de réglage du sélecteur PARAMETER H 23 comme le montre le tableau ci-dessous.

Bit 5	Bit 6	Plage de réglage
OFF	OFF	0-15
ON	OFF	16-31
OFF	ON	32-47
ON	ON	48-63

23 Sélecteur de constante de filtrage horizontal (PARAMETER H)

Règle la constante de filtrage horizontal à appliquer quand le mode de réglage manuel est choisi au bit 4 des 22. Un réglage peut être choisi parmi les 16: 0-15, 16-31, 32-47 ou 48-63 selon le réglage des bits 5 et 6 du sélecteur SELECT H 22.

Les témoins 24 et 27 vous permettent de surveiller la communication avec les périphériques raccordés. Les témoins sont disposés par paires. Le témoin supérieur s'allume lorsque le DME-5000 transmet un signal. Le témoin inférieur s'allume lorsque le DME-5000 reçoit un signal.

24 Témoins de communication avec le panneau de commande

Ils indiquent l'état de la communication avec le panneau de commande raccordé au connecteur CONTROL PANEL.

25 Témoins de communication avec l'éditeur

Ils indiquent l'état de la communication avec le système de contrôle de l'éditeur raccordé au connecteur EDITOR.

26 Témoins de communication avec le commutateur

Ils indiquent l'état de la communication avec le commutateur numérique raccordé au connecteur SWITCHER.

- 27 Témoins de communication avec la matrice**
Ils indiquent l'état de la communication avec le commutateur de matrice externe raccordé au connecteur MATRIX.
- 28 Témoins de sortie GPI**
Ils s'allument lorsque les signaux de déclenchement sont fournis par le connecteur GPI.
- 29 Sélecteur de passage (PASS) d'auto-diagnostic**
Le réglage à ON des bits 1 à 3 de ce sélecteur provoque respectivement le saut des circuits de signal vidéo Y, C et K. Laisser ces trois bits sur OFF, sauf pour l'auto-diagnostic de l'appareil.
- 30 Sélecteur de retard du signal de déplacement (DELAY)**
Règle le retard du signal de déplacement. Ce sélecteur est réservé à l'usage du personnel de service Sony.
- 31 Sélecteurs de phase de démarrage de mosaïque horizontale (MOSAIC H START)**
Ces trois sélecteurs servent à régler la phase de l'adresse de démarrage horizontal de la production de l'effet de mosaïque. Ils sont disposés verticalement, le bit le plus significatif étant en haut (2-4-4 bits). Modifier ces réglages à la commutation entre les modes d'exploitation. (Voir page 1-2(F).)
- 32 Sélecteurs de phase de démarrage de mosaïque verticale (MOSAIC V START)**
Régler le retard (0H à 15H) de l'adresse de démarrage vertical de la production de l'effet de mosaïque. Ce sélecteur est réservé à l'usage du personnel de service Sony.
- 33 Sélecteurs de phase verticale de démarrage de bordure (BORDER V)**
Ces trois sélecteurs servent à régler la phase verticale de la bordure ajoutée. Ils sont agencés verticalement, le bit le plus significatif étant en haut (1-4-4 bits). Modifier ce réglage à la commutation entre les modes d'exploitation. (Voir page 1-2(F).)
- 34 Sélecteurs de phase horizontale de bordure (BORDER H)**
Ces trois sélecteurs servent à régler la phase horizontale de la bordure ajoutée. Ils sont agencés verticalement, le bit le plus significatif étant en haut (2-4-4 bits). Modifier ces réglages à la commutation entre les modes d'exploitation. (Voir page 1-2(F).)
- 35 Sélecteur de passage (PASS) d'auto-diagnostic**
Le réglage à ON des bits 1 à 3 de ce sélecteur provoque respectivement le saut des circuits de signaux vidéo K, C et Y. Les laisser sur OFF, sauf pour l'auto-diagnostic de l'appareil.
- 36 Sélecteurs de phase verticale de limite d'ombre volante (DROP SHADOW V LIMIT)**
Ces trois sélecteurs servent à régler la phase verticale des limiteurs, afin d'éviter le dépassement des extrémités supérieure et inférieure de l'ombre volante. Parmi ces sélecteurs disposés verticalement, celui du haut sert à régler le bit le plus significatif des données de phase, le second les quatre bits suivants, et celui du bas les quatre bits les moins significatifs. Modifier ces réglages à la commutation entre les modes d'exploitation. (Voir page 1-2(F).)
- 37 Sélecteurs de réglage de phase horizontale de limite d'ombre volante (DROP SHADOW H LIMIT)**
Ces trois sélecteurs servent à régler la phase horizontale des limiteurs afin d'éviter le dépassement des extrémités supérieure et inférieure de l'ombre volante. Ils sont agencés verticalement, le bit le plus significatif étant en haut (2-4-4 bits). Modifier ces réglages à la commutation entre les modes d'exploitation. (Voir page 1-2(F).)

Cartes optionnelles

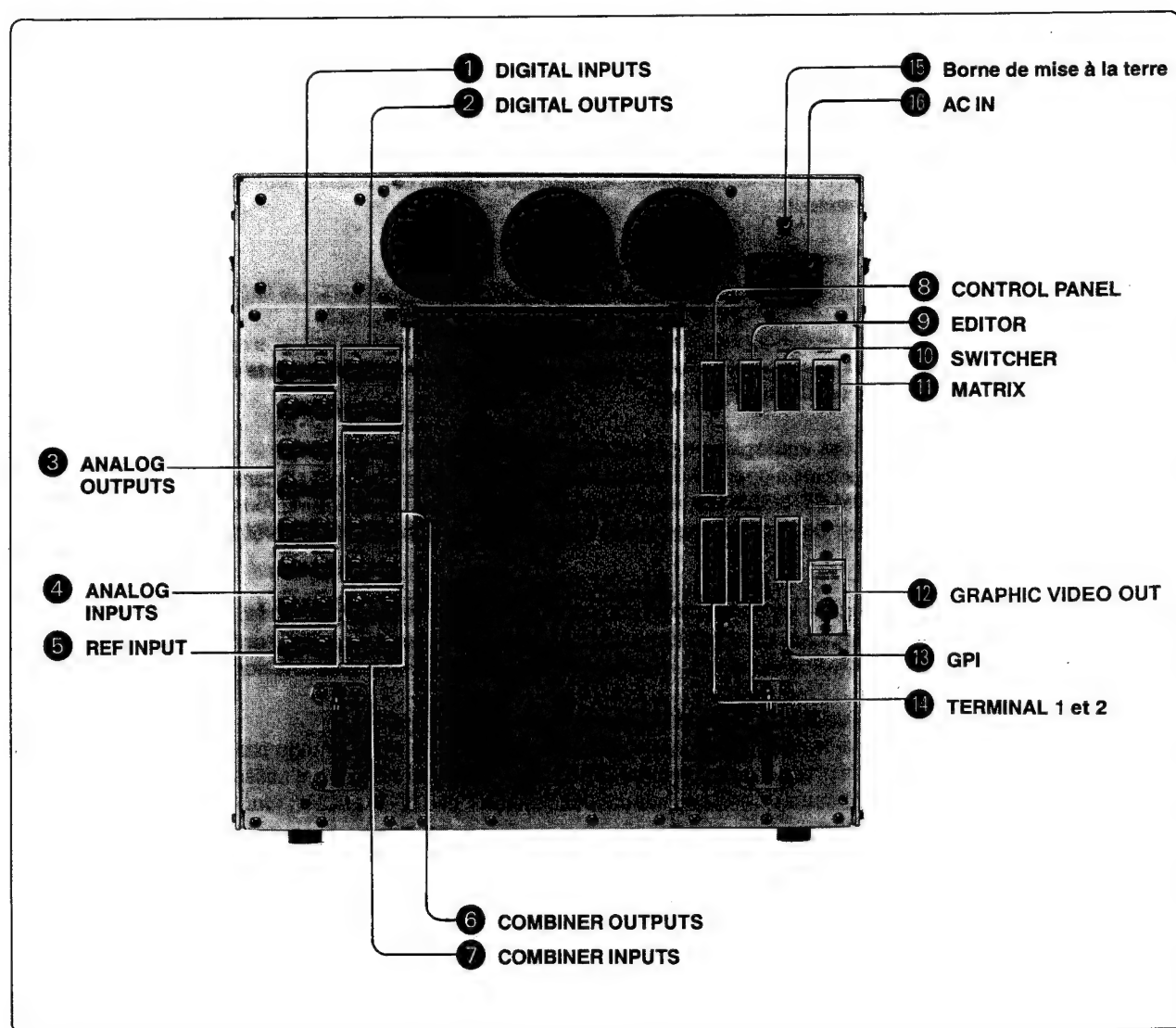
Le tableau suivant donne le nom et le type des cartes optionnelles disponibles, et le numéro du logement de carte de circuit qui leur est réservé.

N°	Nom de carte	Fournie comme
2	Carte d'affichage graphique DSC-58	BKDM-5060
4	Carte d'effets de fondu effacé/éclairage ALU-14	BKDM-5040
5	Carte d'effets non linéaires ALU-13	BKDM-5030
6	Carte d'effets non linéaires ALU-12	BKDM-5030
16	Carte de combineur numérique D2 DLP-12	BKDM-5020
	Carte de combineur numérique D1 DLP-11	BKDM-5021
17	Carte d'entrée/sortie composite DIF-8	BKDM-5010
	Carte d'entrée/sortie composite numérique DIF-8	BKDM-5012
	Carte d'entrée/sortie composante DIF-9	BKDM-5011
	Carte d'entrée/sortie composante numérique DIF-9	BKDM-5013
18	Carte d'entrée/sortie composite IF-293	BKDM-5010
	Carte d'entrée/sortie composite numérique IF-293	BKDM-5012
	Carte d'entrée/sortie composante IF-294	BKDM-5011
	Carte d'entrée/sortie composante numérique IF-294	BKDM-5013

Remarques

- Une carte d'E/S adaptée doit être installée dans les logements 17 et 18, sinon ni l'appareil ni le panneau de contrôle (BKDM-5070) ne fonctionneront.
- Pour les logements 16 à 18, sélectionner la carte convenable pour le système. La commutation entre les modes D1 et D2 peut s'effectuer par les cartes optionnelles installées dans ces logements. Dans certains cas, un changement de mode d'exploitation peut exiger une modification de réglage sur d'autres cartes. Voir la section 1-1-2 "Sélection de carte/réglage de sélecteur pour les différents modes" aux pages 1-2(F) et 1-3(F) pour plus de détails.

1-2-2. Connecteurs du panneau arrière

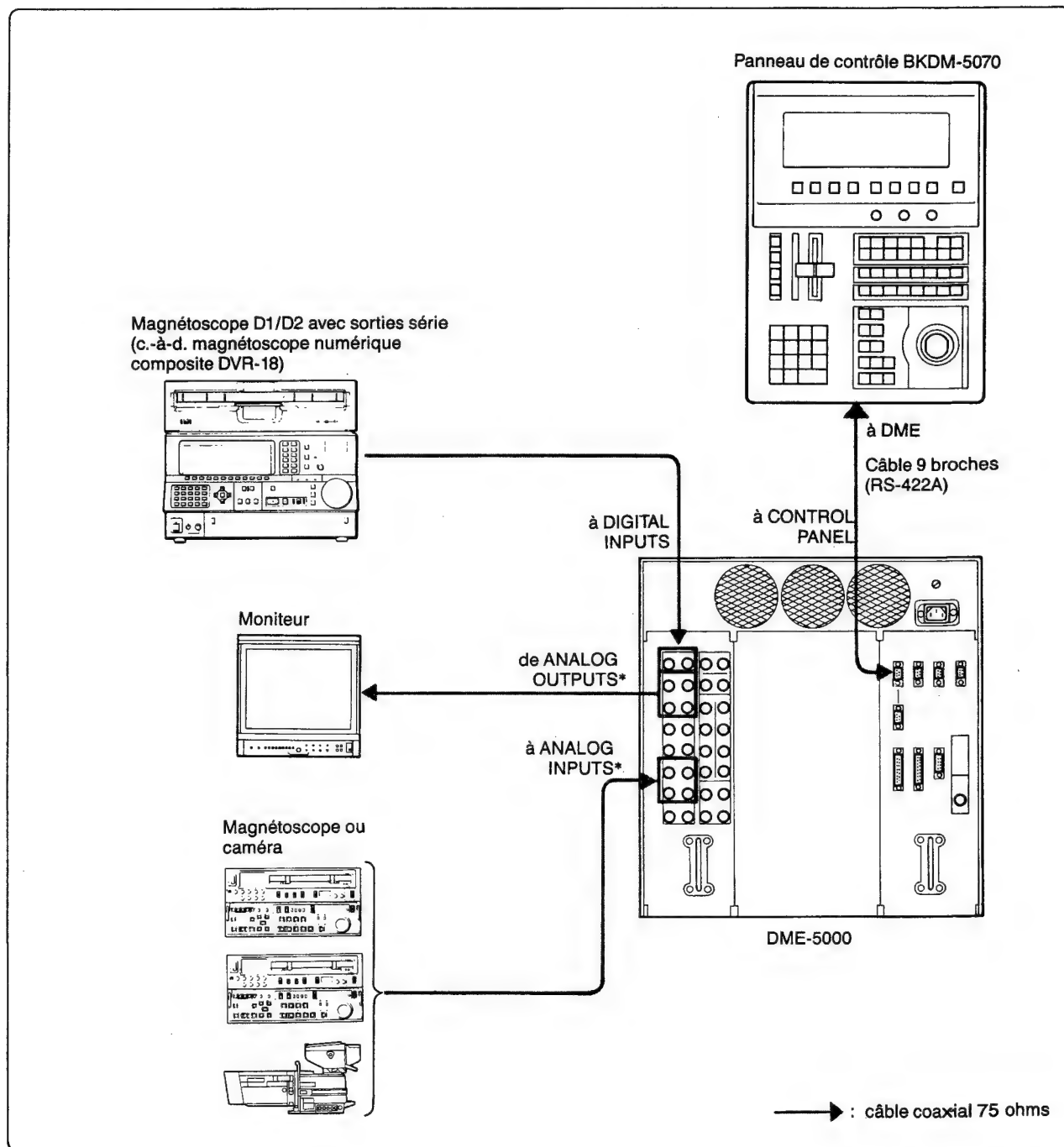


- ① Entrées numériques (DIGITAL INPUTS) (BNC)**
 Entrent les signaux d'entrée numérique série et d'incrustation.
 Quand la différence de phase entre les signaux entrées et l'entrée du signal de référence des connecteurs REF INPUT ⑤ est dans la plage de $-0,9H$ à $+0,1H$, l'ajustement de la phase du signal d'entrée est automatique.
- ② Sorties numériques (DIGITAL OUTPUTS) (BNC)**
 Fournissent les signaux d'entrée numérique série et d'incrustation. Les connecteurs des canaux 1 et 2 (CH1 et CH2) fournissent les mêmes signaux.
 La carte optionnelle BKDM-5010/5011/5012/5013 est requise pour l'usage de ces connecteurs.
- ③ Sorties analogiques (ANALOG OUTPUTS) (BNC)**
 Fournissent les signaux vidéo analogique et d'incrustation. Les connecteurs pour les canaux 1 et 2 (CH1 et CH2) fournissent les mêmes signaux.
 La carte optionnelle BKDM-5010/5011 est requise pour l'usage de ces connecteurs. Ainsi, les connecteurs R-Y et B-Y ne peuvent être utilisés que si la carte optionnelle BKDM-5011 est installée.
- ④ Entrées analogiques (ANALOG INPUTS) (BNC)**
 Entrent les signaux vidéo numérique série et d'incrustation. La carte optionnelle BKDM-5010/5011 est requise pour l'usage de ces connecteurs. Ainsi, les connecteurs R-Y et B-Y ne peuvent être utilisés que si la carte optionnelle BKDM-5011 est installée.
- ⑤ Entrée de référence vidéo (REF INPUT) (BNC)**
 Une paire de connecteurs en boucle servant à l'entrée du signal vidéo de référence analogique. Le signal entré à l'un de ces connecteurs peut être sorti à l'autre. Si un seul d'entre eux est utilisé, terminer l'autre en y insérant une terminaison 17 ohms.
- ⑥ Sorties de combineur (COMBINER OUTPUTS) (BNC)**
 Fournissent les signaux numériques série à combiner à l'image produite par l'appareil et celles produites par d'autres DME-5000. VIDEO et KEYZ sont utilisés en format D1 (composant). Les connecteurs des canaux 1 et 2 (CH1 et CH2) fournissent les mêmes signaux.
 L'usage de ces connecteurs exige l'emploi de la carte optionnelle BKDM-5020/5021.
- ⑦ Entrées de combineur (COMBINER INPUTS) (BNC)**
 Entrent les signaux numériques série à combiner à l'image produite par l'appareil et celles produites par d'autres DME-5000. L'image combinée est sortie du connecteur COMBINER OUTPUTS ⑥. VIDEO et KEYZ sont utilisés en format D1 (composant). Y, C, KEY et Z le sont en format D2 (composite). Les connecteurs des canaux 1 et 2 (CH1 et CH2) fournissent les mêmes signaux.
 L'usage de ces connecteurs exige l'emploi de la carte optionnelle BKDM-5020/5021.
- ⑧ Panneau de contrôle (CONTROL PANEL) (D-SUB 9 broches)**
 Une paire de connecteurs en boucle pour la connexion au panneau de contrôle BKDS-8010 ou BKDS-5070. Quatre appareils DME-5000 peuvent être contrôlés d'un même panneau de contrôle via leurs connecteurs CONTROL PANEL en boucle. Ces connecteurs sont de norme RS-422A.
- ⑨ Unité de montage (EDITOR) (D-SUB 9 broches)**
 Ce connecteur est utilisé pour la connexion à un appareil extérieur, tel que système de contrôle de montage BVE-9000, depuis lequel cet appareil pourra être contrôlé. Ce connecteur est de norme RS-422A.

- 10 Commutateur (SWITCHER) (D-SUB 9 broches)**
Si ce connecteur est raccordé au commutateur vidéo numérique DVS-8000/8000C, l'un des quatre bus auxiliaires internes (AUX 1 à 4) du commutateur peut être contrôlé par cet appareil.
- 11 Matrice (MATRIX) (D-SUB 9 broches)**
Si ce connecteur est raccordé à un commutateur matriciel extérieur, ce dernier peut servir à commuter le signal à entrer à l'appareil.
- 12 Sortie couleur graphique (GRAPHIC VIDEO OUT) (BNC)**
Fournit le signal vidéo analogique (monochrome) à entrer au moniteur vidéo. L'usage de ce connecteur exige l'emploi de la carte optionnelle BKDM-5050.
- 13 E/S universelle (GPI) (D-SUB 15 broches)**
Servent à entrer ou sortir les signaux de déclenchement (quatre pour l'entrée et quatre pour la sortie au maximum) à l'appareil extérieur. Les conditions d'entrée ou de sortie de chaque signal de déclenchement peuvent être posées.
- 14 Bornes 1, 2 (TERMINAL 1, 2) (D-SUB 25 broches)**
Connecter ces connecteurs aux bornes de contrôle adéquates en cas de besoin pour initialiser ou inspecter l'appareil.
- 15 Borne de terre**
Utiliser cette borne pour mettre le système à la terre.
- 16 Entrée secteur (AC IN)**
Brancher ce connecteur dans une alimentation secteur adaptée à l'aide du cordon d'alimentation fourni.

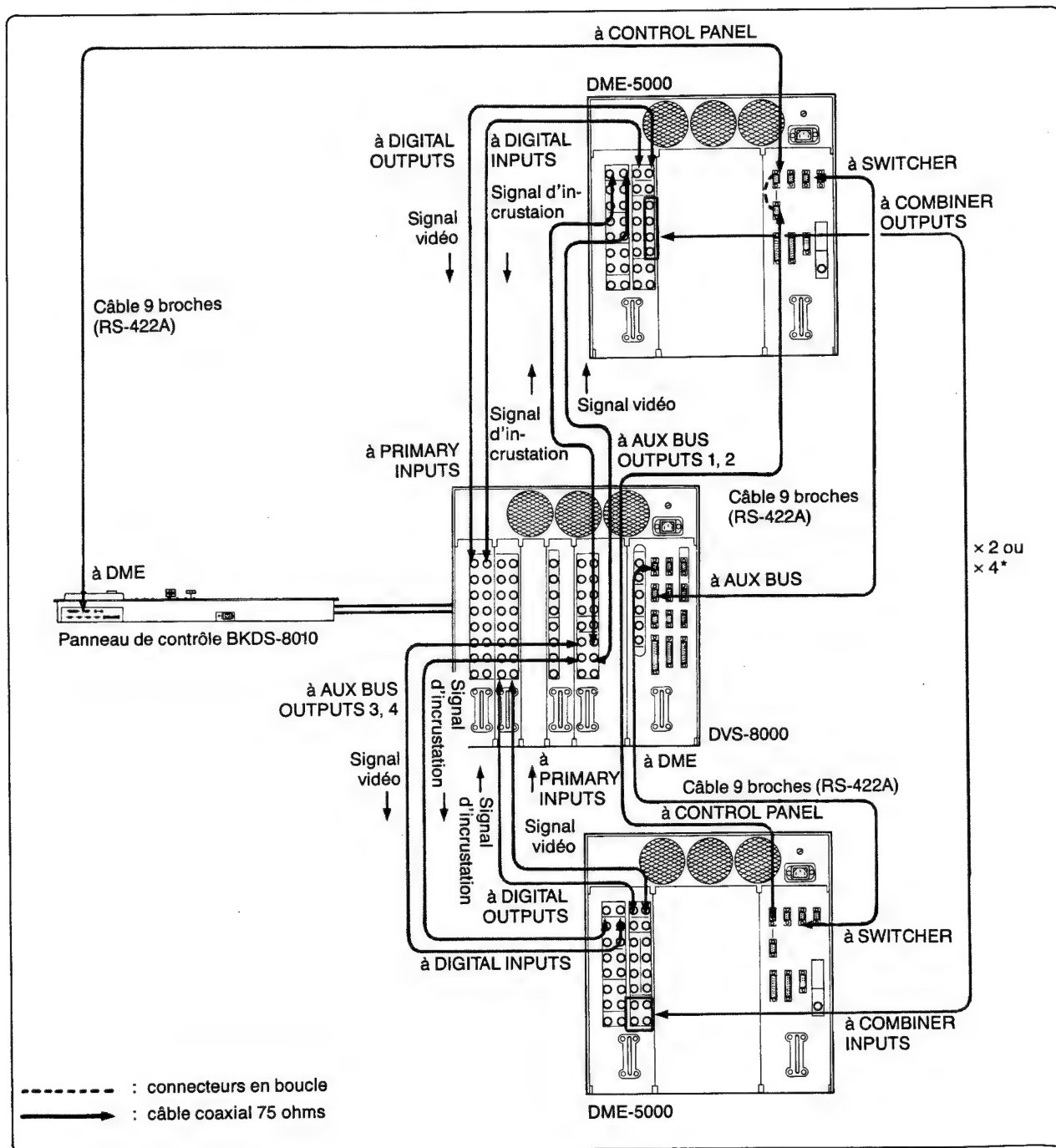
1-3. Connexions du système

1-3-1. Connexion à un panneau de contrôle spécialisé et à un appareil d'E/S



* Utiliser Y, R-Y, B-Y et KEY pour entrer les signaux d'entrée/sortie composants, ou VIDEO et KEY pour entrer/sortir les signaux d'entrée/sortie composites.

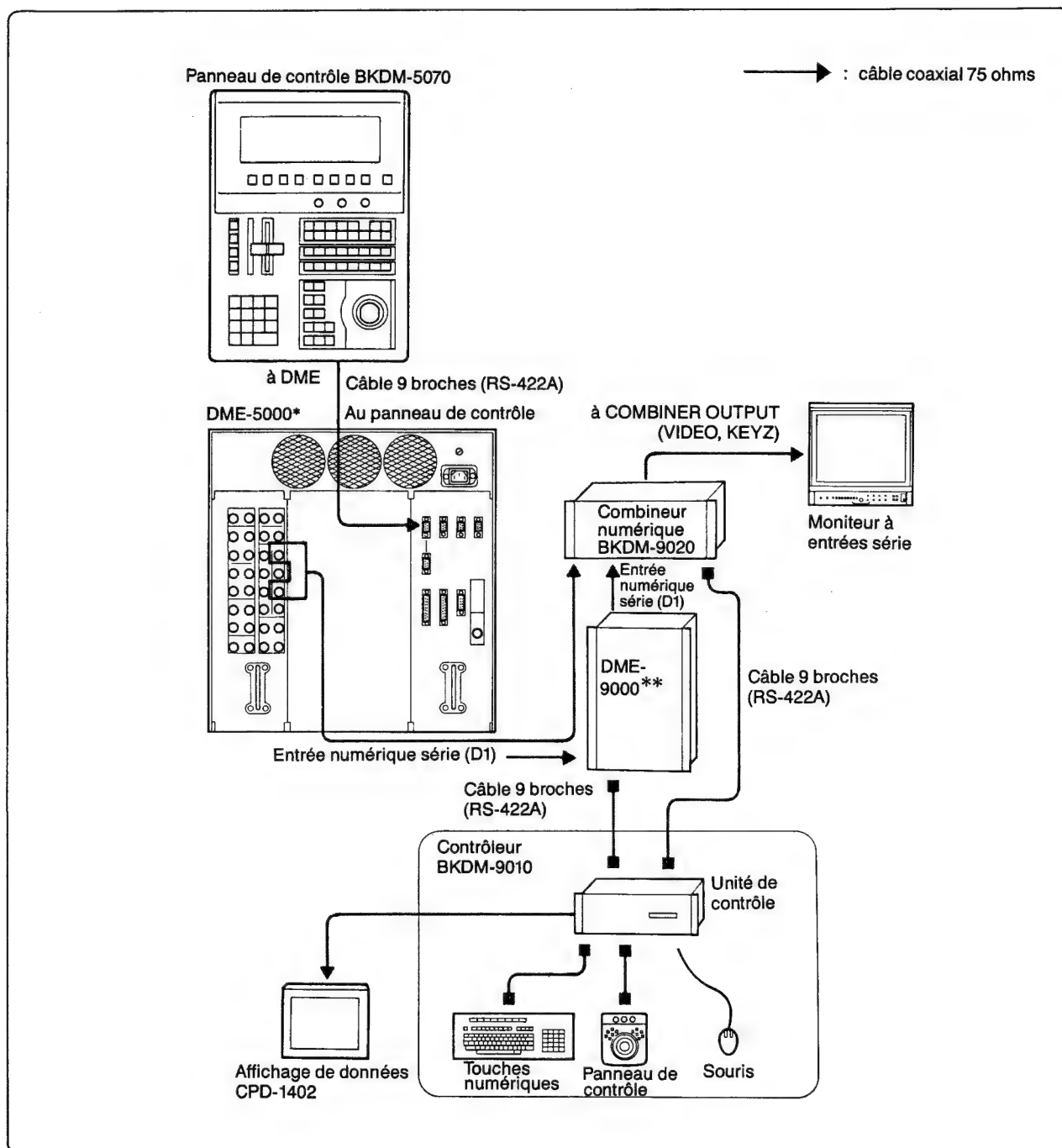
1-3-2. Connexion à un commutateur vidéo numérique DVS-8000/8000C



* En mode D1: Connecter COMBINER OUTPUTS (VIDEO et KEYZ) et COMBINER INPUTS (VIDEO et KEYZ) avec 2 câbles.

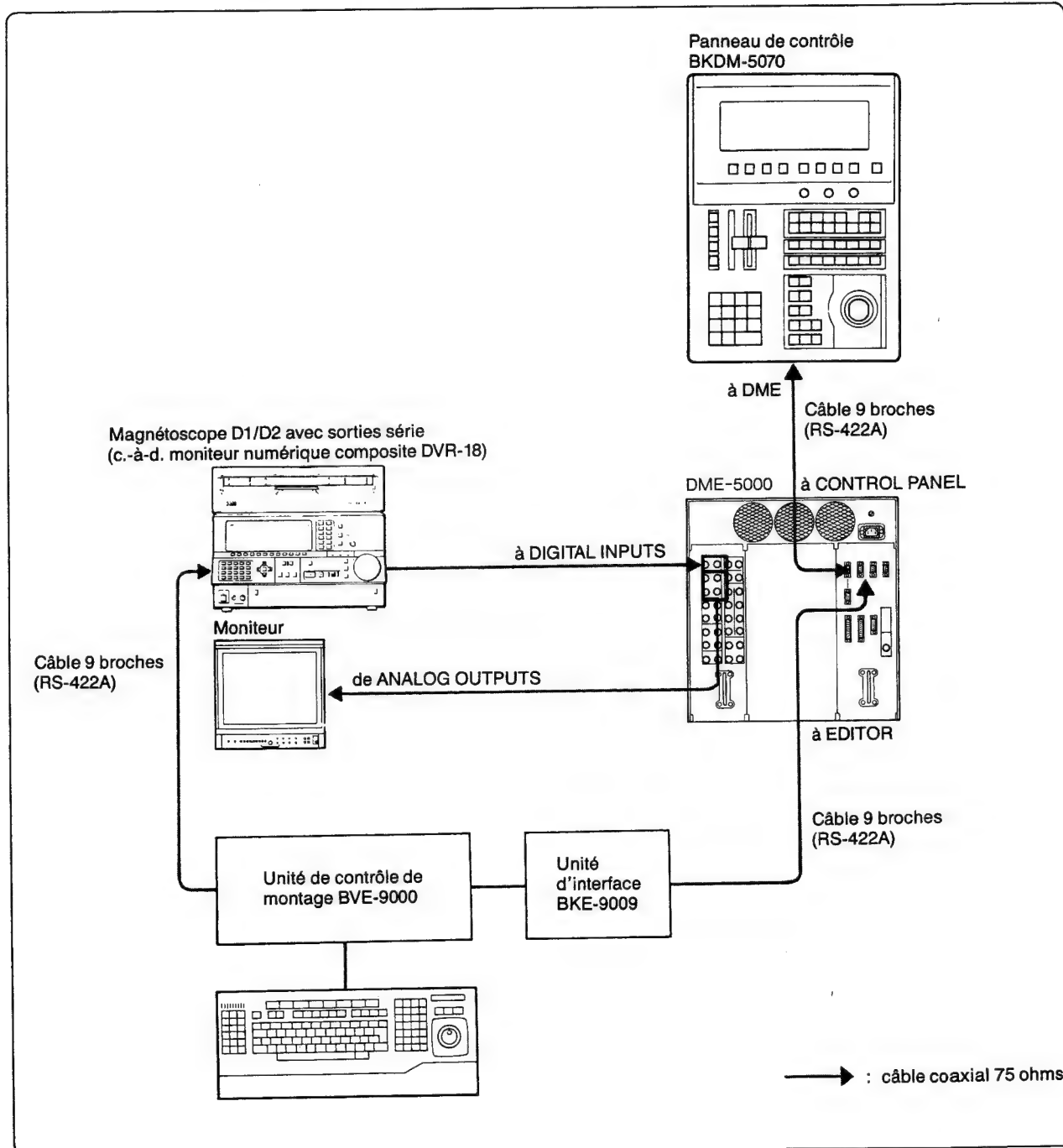
En mode D2: Connecter COMBINER OUTPUTS (Y, C, KEY et Z) et COMBINER INPUTS (Y, C, KEY et Z) avec 4 câbles.

1-3-3. Connexion à un générateur d'effets numériques multiples DME-9000 (pour le mode D1)

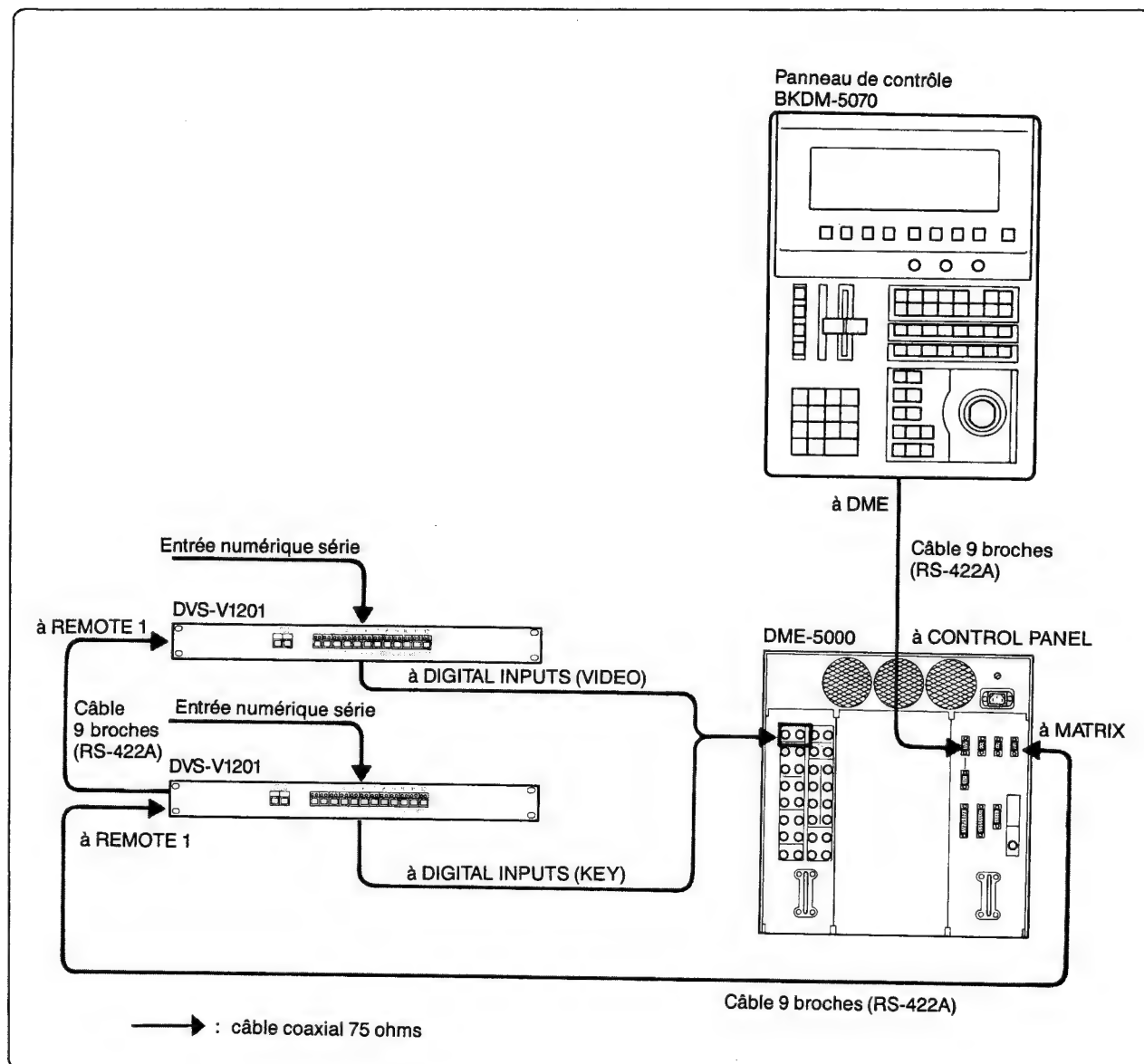


* Le DME-500 exige une carte optionnelle BKDM-5021.
 ** Le DME-5000 exige une carte optionnelle BKDM-9023.

1-3-4. Connexion à un système de contrôle de montage BVE-9000



1-3-5. Connexion à un commutateur d'acheminement vidéo numérique DVS-V1201



1-4. Spécifications

Généralités

Alimentation	Secteur de 85-132/170-265 V commuté automatiquement
Consommation	Env. 500 W (avec toutes les options)
Température	
Rangement	- 20 à + 55°C (- 4 à + 131°F)
Fonctionnement	5 à 40°C (41 à 104°F)
Fonctionnement dans les spécifications	10 à 35°C (50 à 95°F)
Humidité	
Fonctionnement	80% RH ou moins
Fonctionnement dans les spécifications	70% RH ou moins
Dimensions (l/h/p)	424 x 443 x 450 mm, parties saillantes non comprises (16¾ x 17½ x 17¾ pouces)
Poids	50 kg (110 livres 4 onces)

Connecteurs d'E/S

DIGITAL INPUTS	Composant	
	VIDEO	Pour le signal d'entrée numérique série, BNC (× 1), 75 ohms
	KEY	Pour le signal d'entrée numérique série, BNC (× 1), 75 ohms
	Composite	
	VIDEO	Pour le signal d'entrée numérique série, BNC (× 1), 75 ohms
	KEY	Pour le signal d'entrée numérique série, BNC (× 1), 75 ohms
DIGITAL OUTPUTS	Composant	
	VIDEO	Pour le signal de sortie numérique série, BNC (× 2), 75 ohms
	KEY	Pour le signal de sortie numérique série, BNC (× 2), 75 ohms
	Composite	
	VIDEO	Pour le signal de sortie numérique série, BNC (× 2), 75 ohms
	KEY	Pour le signal de sortie numérique série, BNC (× 2), 75 ohms
ANALOG INPUTS	Composant	
	Y, R-Y, B-Y, KEY	Pour les signaux d'entrée Betacam ou SMPTE, BNC (× 4)
	Composite	
	VIDEO	Pour le signal d'entrée composite analogique, BNC (× 1)
ANALOG OUTPUTS	KEY	VS: 1 Vc-c, BNC (× 1)
	Composant	
	Y, R-Y, B-Y, KEY	Pour le signal de sortie composant Betacam ou SMPTE (avec SYNC ajouté à Y seulement), BNC (× 8)
	Composite	
	VIDEO	Pour le signal de sortie composite analogique, BNC (× 2)
	KEY	VS: 1 Vc-c, BNC (× 2)

REF INPUT	<p>Composant</p> <p>Pour le signal d'entrée de référence analogique, BNC (× 2)</p> <p>Salve du noir ou synchro composite</p> <p>Bouclage Hi-z</p> <p>Composite</p> <p>Pour le signal d'entrée vidéo de référence analogique, BNC (× 2)</p> <p>Salve du noir</p> <p>Bouclage Hi-z</p>
COMBINER INPUTS	<p>Composant</p> <p>VIDEO, KEYZ</p> <p>Pour le signal d'entrée numérique série, BNC (× 2)</p> <p>Composite</p> <p>Y, C, KEY, Z</p> <p>Pour le signal d'entrée numérique série, BNC (× 4)</p>
COMBINER OUTPUTS	<p>Composant</p> <p>VIDEO, KEYZ</p> <p>Pour le signal de sortie numérique série, BNC (× 4)</p> <p>Composite</p> <p>Y, C, KEY, Z</p> <p>Pour le signal de sortie numérique série, BNC (× 8)</p>
GRAPHIC VIDEO OUT	Pour le signal de sortie Vidéo analogique (monochrome), BNC (×1)

Signaux de télécommande

CONTROL PANNEL	Conforme à la norme RS-422A (D-SUB 9 broches)
EDITOR	Conforme à la norme RS-422A (D-SUB 9 broches)
SWITCHER	Conforme à la norme RS-422A (D-SUB 9 broches)
MATRIX	Conforme à la norme RS-422A (D-SUB 9 broches)
TERMINAL 1	Conforme à la norme RS-232C (D-SUB 25 broches)
TERMINAL 2	Conforme à la norme RS-232C (D-SUB 25 broches)
GPI	4 entrées et 4 sorties, programmable (D-SUB 15 broches)

Performance

Composite	
Linéarité	DG: 2% max. DP: 2° max. (signal RAMP superposé à la sous-porteuse 40-IRE)
Fréquence de réponse	± 0,25 dB, 200 kHz à 4,2 MHz
Caractéristiques d'impulsion	K: 1% max. impulsion 2T
Rapport signal/bruit	Sup. à 52 dB
Composant	
Fréquence de réponse	Y: +0,5 dB, 200 kHz à 5,5 MHz R-Y/B-Y: +0,1 dB, 200 kHz à 2,5 MHz
Caractéristiques d'impulsion	K: 1% max. impulsion 2T
Rapport signal/bruit	Sup. à 55 dB

Echantillonnage

Horloge	Composite D2: 14,3 MHz Composite D1: 13,5 MHz
Quantification	Analogique: 9 bits E/S numérique: 10 bits (8 bits en mémoire)

Absorption de la différence de phase d'entrée

Plage d'erreurs d'entrée tolérées: $-56 \mu\text{s}$ à $+6 \mu\text{s}$ par cadre

Accessoires fournis

Angles de montage dans un rack (1 lot; fixés au coffret)
Carte d'extension EX-270 (1)
Cordon d'alimentation secteur (1)
Adaptateur de prise pour cordon d'alimentation (1)
Terminaison 75 ohms (1)
Mode d'emploi et d'entretien (1)

Equipement recommandé

Panneau de contrôle BKDM-5070 pour DME-5000
Commutateur vidéo numérique DVS-8000/8000C
Panneau de contrôle BLDS-8010 pour DVS-8000/8000C
Système de contrôle de montage BVE-9000

Cartes de circuits optionnelles

Carte d'entrée/sortie composite BKDM-5010
Carte d'entrée/sortie composante BKDM-5011
Carte d'entrée/sortie composite numérique BKDM-5012
Carte d'entrée/sortie composante numérique BKDM-5013
Carte de combineur numérique D2 BKDM-5020
Carte de combineur numérique D1 BKDM-5021
Carte d'effets non linéaires BKDM-5030
Carte d'effets de fondu effacé/éclairage BKDM-5040
Carte d'affichage graphique BKDM-5060

Conception et spécifications sont sujettes à modification sans préavis.

Kapitel 1. BETRIEB

1-1. Überblick

Der Digital-Multieffektor DME-5000 erzeugt hochwertige Bildeffekte durch vollständig digitale Signalverarbeitung. Es läßt sich über die Bedieneinheit BKDM-5070 ansteuern, oder zusammen mit einer Digital-Video-Schalteinheit DVS-8000/8000C betreiben, wobei es wie diese über die Bedieneinheit BKDS-8010 angesteuert wird.

1-1-1. Hauptmerkmale

Serielle Digitaleingänge/-ausgänge

Alle Digitaleingänge/-ausgänge der Einheit sind seriell ausgelegt, so daß jeweils nur ein einziges Koaxialkabel erforderlich ist. Im Gegensatz zu herkömmlichen parallelen Schnittstellen wird auf diese Weise der Schaltungsaufwand verringert; außerdem ist dank der Freiheit von asymmetrischen Taktungsfehlern für höhere Zuverlässigkeit und Übertragung über größere Distanzen gesorgt.

Kompatibilität mit FBAS- und Komponenten-Signalen

Aufgrund der vier als Sonderzubehör erhältlichen EA-Karten (BKDM-5010/5011/5012/5013) ist die Einheit kompatibel mit allen Kombinationen von FBAS- und Komponenten-Signalen in digitaler und analoger Form. Beim Anschluß der Einheit an ein vorhandenes System müssen Sie die EA-Karte wählen, die für die jeweilige Schalteinheit vorgesehen ist.

Integriertes System mit einer Schalteinheit der Serie DVS-8000

Sie können eine DME-5000-Einheit an ein Schaltsystem DVS-8000/8000C anschließen und beide über eine gemeinsame Bedieneinheit ansteuern. Dieses integrierte System arbeitet rein digital und erreicht eine optimale Bildqualität. Die fortgeschrittene Funktion DME LINK (R) unterstützt z.B. DME-Wischeffekte, bei denen Videoeffekte mit der Wischfunktion der Schalteinheit kombiniert sind.

Gleichzeitiger Betrieb auf mehreren Kanälen

Sie haben die Möglichkeit, zwei bis vier DME-5000-Einheiten zusammenzuschalten und über eine gemeinsame Bedieneinheit anzusteuern. Auf diese Weise lassen sich gleichzeitig maximal vier Kanäle oder ein bestimmter Kanal beeinflussen.

Kombinationsbildfunktion

Sie können zwei oder mehr DME-5000-Einheiten, die über die Digital-Kombinationskarte BKDM-5020/5021 verfügen, zusammenschalten und so maximal vier Kanäle für ein einziges Bild zusammenfassen. Bei dieser Kombinationsfunktion dienen spezielle Signale zur Darstellung der Bildtiefeinformationen, so daß äußerst realistische Effekte mit dreidimensionaler Bildmanipulationen möglich werden.

Automatische Umschaltung zwischen Vollbild- und Halbbildverarbeitung

Der Bewegungsdetektor schaltet die Einheit je nach der Bildbewegung automatisch zwischen Vollbildbetrieb (bildweise Verarbeitung) und Halbbildbetrieb (halbbildweise Verarbeitung) um. Alle Informationen eines Vollbilds entsprechen genau den von zwei Halbbildern, so daß im Vollbildbetrieb die Bildqualität voll erhalten bleibt. Zur Erzeugung eines neuen Bilds mit Hilfe von Effekten ermöglicht Vollbildbetrieb eine präzisere Verarbeitung als Halbbildbetrieb. Diese zweite Betriebsart ist jedoch besser zur Realisierung natürlicher und fließender Bildbewegungen geeignet.

1-1-2. Wahl der Karten und Einstellung der Schalter für die verschiedenen Modi

Der DME-5000 kann je nach Signalformat in drei verschiedenen Modi arbeiten:

D2 (NTSC), D1 (525) und D1 (625). Hierzu sind unterschiedliche Karten (Standard-Karten und Zusatzausstattungen) erforderlich und bestimmte Schalter müssen auf das jeweilige Format eingestellt werden.

Überprüfen Sie die eingebauten Karten und die Schalterstellungen, bevor Sie Ihr System modifizieren oder zusätzliche Karten einbauen.

Schalterstellungen

Die folgende Tabelle zeigt die Schalterstellungen auf den Karten, die für die verschiedenen Modi erforderlich sind.

Für die Anordnung und Funktion der ersten drei Schalter (Nr. 1 bis 3 und Nr. 5) in der Tabelle lesen Sie bitte Abschnitt 1-2-1 „Frontplatte und Geräteinneres“ auf den Seiten 1-5 bis 1-12. Für die Lage der letzten drei Schalter (Nr. 4 und Nr. 7 bis 9) lesen Sie bitte Abschnitt 9 „LEITERLATTEN“. Diese Schalter sind auf den betreffenden Leiterplatten mit S3, S5 und S6 gekennzeichnet.

Nr.	Bezeichnung der Leiterplatte	Schalterbezeichnung/ Bit-Nr.	Modus/Einstellung (1:ON, 0:OFF)		
			D2 (NTSC)	D1 (525)	D1 (625)
1	DPR-42	S2-S4(MOSAIC H START)*	EAE	EAD	EAD
2	DPR-16	S1-S6 (BORDER V/H)*	FF4FBA	FF5FC0	FEEFBE
3	DPR-16	S8-S13* (DROP SHADOW V/H LIMIT)	EFFC76h	EFF8C6h	ED28ADh
4	DPR-16	COR3	xx00x	xx00x	x0xx0
5	DPR-17	S7 (MODE)	11	01	00
6	DPR-18	S2 (MODE)	00	10	11
7	CPU-106	S3, Bits 1 und 2 **	01*****	00*****	10*****
8	DLP-10	S5, Bits 1 bis 8	10010001	10101010	11011010
9	DLP-10	S6, Bits 1 bis 8	01010001	01101010	00111010
10	DSC-58 (BKDM-5060)	COR8	○	○	×

COR-Einstellung (○: „short“, ×: „open“)

* Die erforderlichen Einstellungen dieser Schalter sind abhängig von den jeweils eingebauten Sonderzubehör-Karten. Einzelheiten erfragen Sie bitte bei Ihrem Sony-Fachhändler.

** Lassen Sie die Bits 3 bis 8 unverändert.

Standard-Karten

Die Standard-Karten im DME-5000 sind die gleichen für alle drei Modi. Nur die in die folgenden Schlitze gehenden Karten bestimmen den Modus.

Schlitz-Nr.	Modus/Bezeichnung der Leiterplatte		
	D2 (NTSC)	D1 (525)	D1 (625)
8	DPR-18		DPR-18 (A)
10 bis 12	MEM-41		MEM-41 (A)

Zusatz-Karten

In der folgenden Tabelle werden die verfügbaren Zusatz-Karten aufgeführt. Wie aus der Tabelle ersichtlich, erfordern manche Zusatzausstattungen unterschiedliche Leiterplatten für D1 und D2.

Art der Zusatzausstattung	Modus/Bezeichnung der Leiterplatte		
	D2 (NTSC)	D1 (525)	D1 (625)
Digital/Analog-Signal-E/A-Karte	BKDM-5010	BKDM-5011	
Digital-Signal-E/A-Karte	BKDM-5012	BKDM-5013	
Digital-Kombinationskarte	BKDM-5020	BKDM-5021	
Nichtlinearte-Effekt-Karte	BKDM-5030		
Licht-Wischoffekt-Karte	BKDM-5040		
Grafik-Karte	BKDM-5060		

1-1-3. Wichtige Hinweise

Handhabung von Steckkarten

Gewöhnlich brauchen die Steckkarten nicht ausgebaut oder ausgetauscht zu werden. Bei Wartungsarbeiten oder Einsetzen von Sonderzubehör-Karten beachten Sie bitte unbedingt die folgenden Vorsichtsmaßnahmen:

- Sorgen Sie vor Einsetzen oder Herausziehen einer Karte unbedingt dafür, daß die Stromversorgung ausgeschaltet ist (siehe Seite 1-6(G)).
- Vergewissern Sie sich vor dem Einschalten der Stromversorgung nach dem Einsetzen einer neuen Karte, daß die Nummern von Karte und Steckplatz übereinstimmen. Näheres hierzu finden Sie unter Abschnitt 3-4 „Ein- und Ausbau der Steckkarten“. Durch diese Vorsichtsmaßnahmen werden die Steckkarten vor eventuellen Schäden geschützt.

Schutzschalter

Falls in der Einheit Stromstöße auftreten, spricht der Schutzschalter an und schaltet automatisch die Stromversorgung aus (siehe Seite 1-6(G)).

Wenn trotz Betätigung des Netzschalters die Stromversorgung deaktiviert bleibt, ist wahrscheinlich der Schutzschalter ausgelöst worden. In diesem Fall öffnen Sie bitte die Frontplatte und rasten Sie die BREAKER-Taste ein.

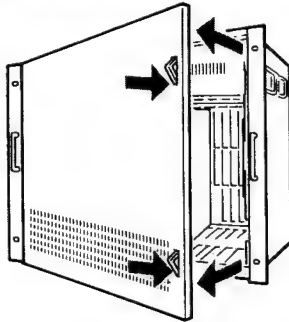
1-2. Lage und Funktion der Teile

1-2-1. Frontplatte und Geräteinneres

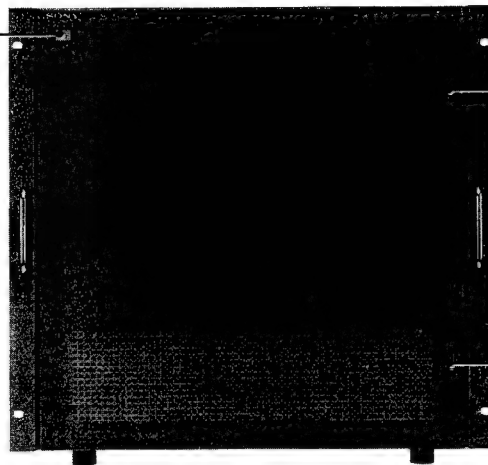
Frontplatte

Öffnen der Frontplatte

Jeweils auf das untere Ende der Frontplattenriegel drücken und nach vorn ziehen.

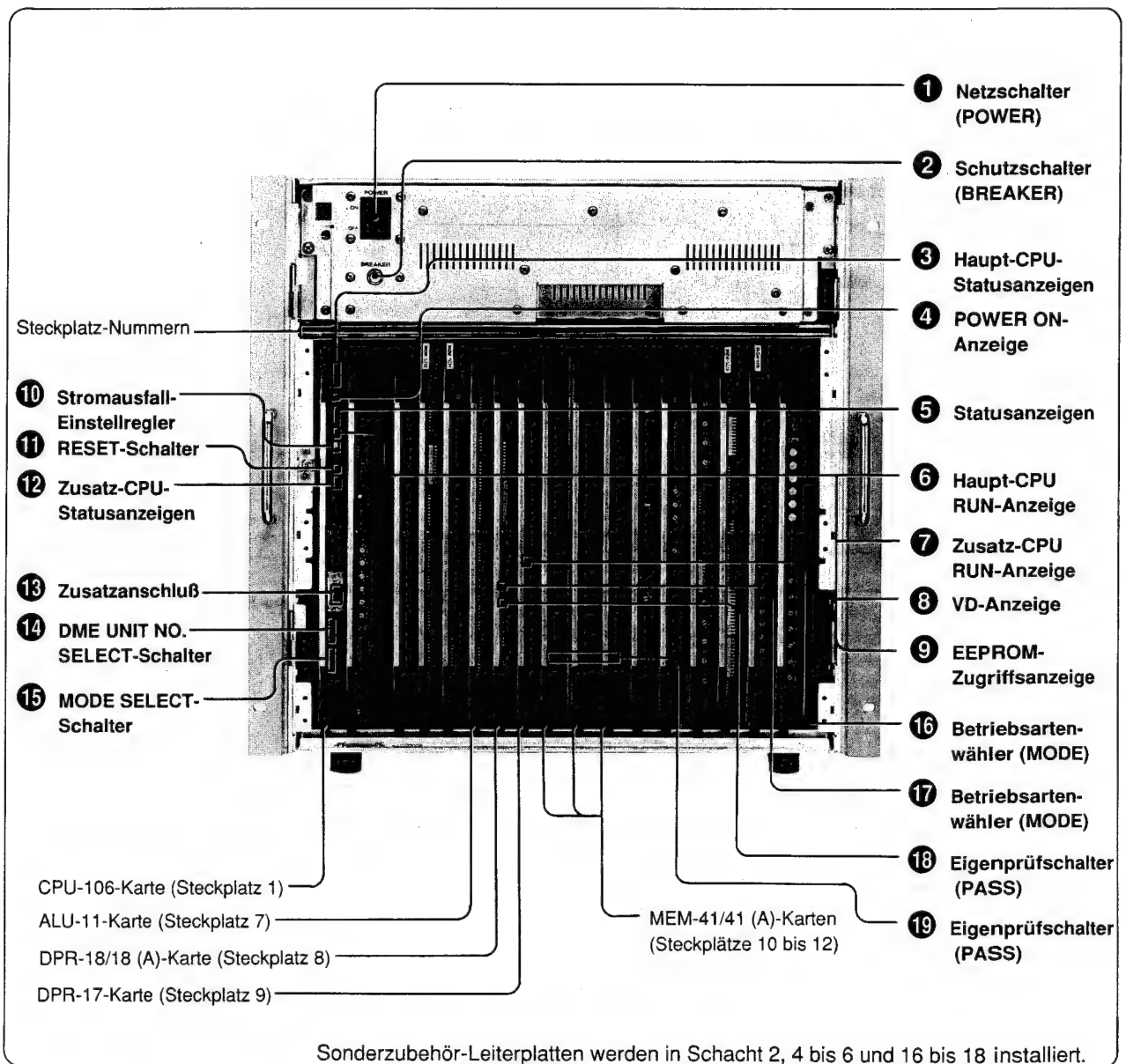


POWER-Anzeige



Frontplattenriegel

Geräteinneres



* Bei diesen Karten handelt es sich um Sonderzubehör; da sie jedoch als Video-EA-Schnittstellen dienen, sind sie zum Betrieb dieser Einheit unerlässlich. Näheres hierzu finden Sie unter „Sonderzubehör-Karten“ auf Seite 1-12(G) und in den Gebrauchs- und Wartungsanleitungen der jeweiligen Karten.

- 1 Netzschalter (POWER)**
Dient zum Ein- und Ausschalten der Stromversorgung der Einheit.
- 2 Schutzschalter (BREAKER)**
Bei übermäßig hohen Strömen in der Einheit rastet dieser Drucktaster aus und unterbricht auf diese Weise automatisch die Stromversorgung.
- 3 Haupt-CPU-Statusanzeigen**
Diese Anzeigen werden nicht verwendet.
- 4 POWER ON-Anzeige**
Leuchtet bei eingeschalteter DME-5000.
- 5 Statusanzeigen**
Diese Anzeigen dienen für den Selbsttest.
Bei normalem Betrieb blinken die Anzeigen nacheinander auf.
- 6 Haupt-CPU RUN-Anzeige**
Leuchtet bei normal arbeitender Haupt-CPU.
- 7 Zusatz-CPU RUN-Anzeige**
Leuchtet bei normal arbeitender Zusatz-CPU.
- 8 VD-Anzeige**
Leuchtet, wenn der DME-5000 ein VD-Signal zugeleitet wird.
- 9 EEPROM-Zugriffsanzeige**
Leuchtet bei Zugriff auf das EEPROM.
- 10 Stromausfall-Einstellregler**
Keine Verwendung
- 11 RESET-Schalter**
Zum Zurückstellen der CPU.
- 12 Zusatz-CPU-Statusanzeigen**
Keine Verwendung.
- 13 Zusatzanschluß (D-SUB 9pol)**
Dieser RS-232C-Anschluß ist ausschließlich für Sony Wartungspersonal bestimmt.
- 14 DME UNIT NO. SELECT-Schalter**
Bei Verwendung mehrerer DME-5000 kann mit diesem Schalter jedem Gerät ein Kanal zugewiesen werden. Genaueres zur Kanaluweisung siehe unter „3-7. Setting select switches/Setting at shipment.“
- 15 MODE SELECT-Schalter**
Zur Einstellung auf ein 525- oder 625-Zeilen-System. Genaueres zur Einstellung siehe unter „3-7. Setting select switches/Setting at shipment.“

16 Betriebsartenwähler (MODE)

Besteht aus zwei Schaltern zum Umstellen der Betriebsarten der Einheit wie folgt:

Bitstelle 1: ON = D2-Betrieb, OFF = D1-Betrieb

Bitstelle 2: ON = 525-Betrieb, OFF = 625-Betrieb

17 Betriebsartenwähler (MODE)

Besteht aus zwei Schaltern zum Umstellen der Betriebsarten der Einheit wie folgt:

Bitstelle 1: ON = D1-Betrieb, OFF = D2-Betrieb

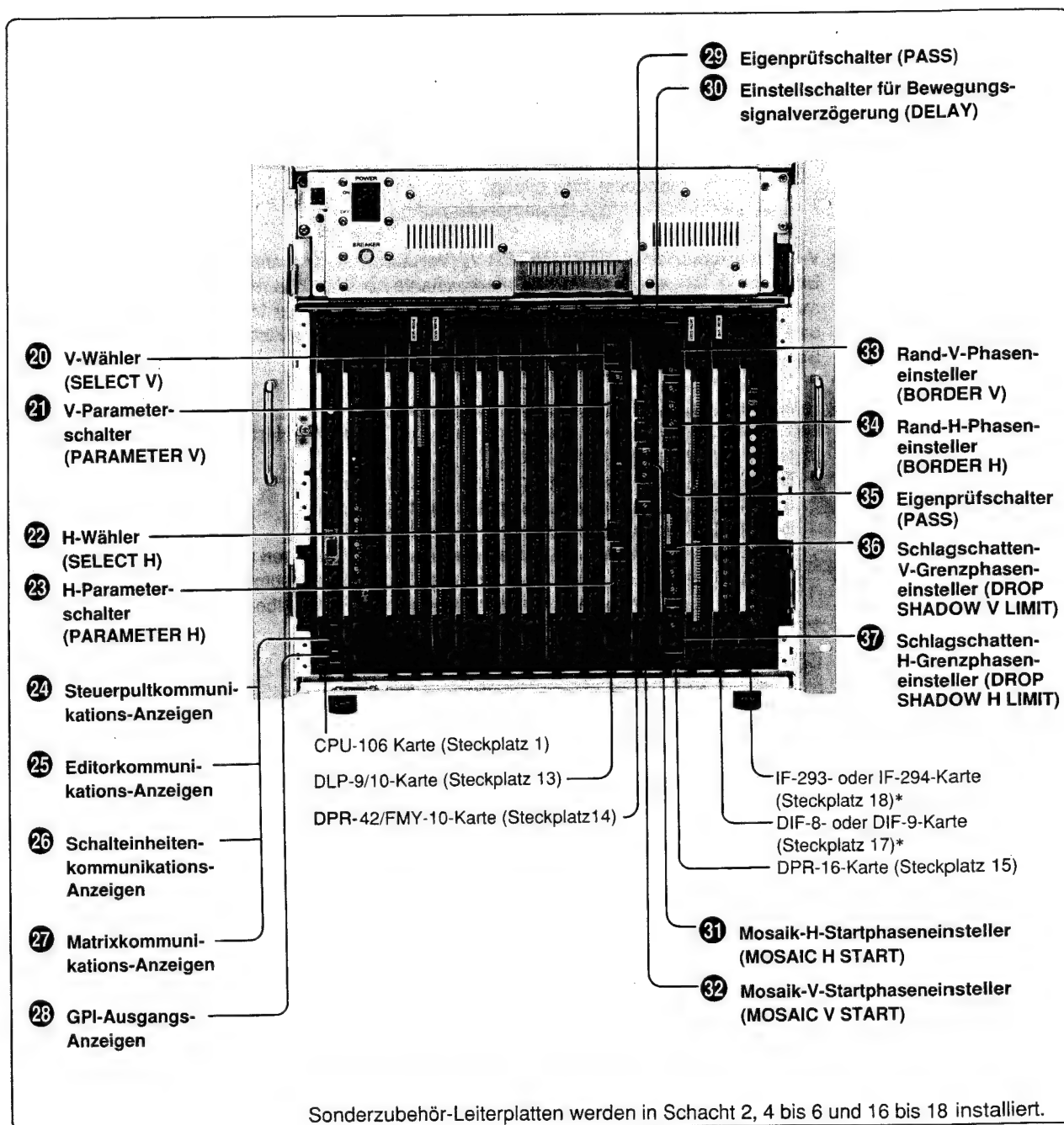
Bitstelle 2: ON = 625-Betrieb, OFF = 525-Betrieb

18 Eigenprüfschalter (PASS)

Ist Schalter 1 in Position ON, so werden die internen Operationen auf den Karten DPR-18/18(A) und ALU-11/12/13 übergangen. Daher muß dieser Schalter außer bei Durchführung der Eigenprüfung der Einheit stets auf OFF gestellt sein.

19 Eigenprüfschalter (PASS)

Ist Schalter 1 in Position ON, so werden die internen Operationen auf der MEM-41/41 (A)-Karte übergangen. Daher muß dieser Schalter außer bei Durchführung der Eigenprüfung der Einheit stets auf OFF gestellt sein.



* Bei den Karten handelt es sich um Sonderzubehör; da sie jedoch als Video-EA-Schnittstellen dienen, sind sie zum Betrieb dieser Einheit unerlässlich. Näheres hierzu finden Sie unter „Sonderzubehör-Karten“ auf Seite 1-12(G) und in den Gebrauchs- und Wartungsanleitungen der jeweiligen Karten.

20 V-Wähler (SELECT V) (Vertikalfilterparameter)

Vier Schalter 1 bis 4 von oben nach unten, mit denen die Vertikalfilterparameter folgendermaßen eingestellt werden:

Bitstelle 1: Ein-/Ausschalten der DEFOCUS-Schaltung

Bitstelle 2: Umschaltung des Parametereinstellbetriebs zwischen manuell und automatisch.

Bitstelle 3: Wahl des Parametereinstellbereichs für Bit 0 bis 15 oder 16 bis 31 bei manueller Einstellung.

Bitstelle 4: Für künftige Systemerweiterung

21 V-Parameterschalter (PARAMETER V) (Vertikalfilterkonstante)

Einstellung der geltenden Vertikalfilterkonstante bei Wahl des manuellen Einstellbetriebs mit Bitstelle 2 an SELECT V-Schalter 20. Sie können eine der 16 Einstellungen 0 bis 15 oder 16 bis 31 wählen, abhängig von dem Setzzustand von Bitstelle 3 an SELECT V-Schalter 20.

22 H-Wähler (SELECT H) (Horizontalfilterparameter)

Sechs Schalter 1 bis 6 von oben nach unten, mit denen die Horizontalfilterparameter folgendermaßen eingestellt werden:

Bitstelle 1: Ein-/Ausschalten der Y-Filterüberbrückung

Bitstelle 2: Ein-/Ausschalten der C-Filterüberbrückung

Bitstelle 3: Ein-/Ausschalten der K-Filterüberbrückung

Bitstelle 4: Umschalten der Parametereinstellung zwischen manuell und automatisch.

Bitstelle 5 und 6: Bei gewählter manueller Einstellung bestimmen die Setzzustände dieser beiden Bitstellen einen von vier Einstellbereichen von PARAMETER H-Schalter 21 wie folgt:

Bitstelle 5	Bitstelle 6	Einstellbereich
OFF	OFF	0–15
ON	OFF	16–31
OFF	ON	32–47
ON	ON	48–63

23 H-Parameterschalter (PARAMETER H) (Horizontalfilterkonstante)

Einstellung der geltenden Horizontalfilterkonstante bei Wahl des manuellen Einstellbetriebs mit Bitstellen 4, 5 und 6 an SELECT H-Schalter 22. Sie können eine der 16 Einstellungen 0 bis 15, 16 bis 31, 32 bis 47 oder 48 bis 63 wählen, abhängig vom Setzzustand von Bitstelle 5 und 6 an SELECT H-Schalter 22.

Die Anzeigen 24 und 27 ermöglichen eine Überprüfung der Kommunikation mit den peripheren Geräten. Die Anzeigen sind paarweise gruppiert. Die obere Anzeige leuchtet, während die DME-5000 leuchtet, wenn die DME-5000 ein Signal sendet. Die untere Anzeige leuchtet, wenn die DME-5000 ein Signal empfängt.

24 Steuerpultkommunikations-Anzeigen

Zeigen den Kommunikationsstatus mit dem an der CONTROL PANEL-Buchse angeschlossenen Steuerpult.

25 Editorkommunikations-Anzeigen

Zeigen den Kommunikationsstatus mit der an der EDITOR-Buchse angeschlossenen Schnitt-Steuereinheit.

26 Schalteinheitenkommunikations-Anzeigen

Zeigen den Kommunikationsstatus mit der an der SWITCHER-Buchse angeschlossenen digitalen Video-Schalteinheit.

- 27 Matrixkommunikations-Anzeigen**
 Zeigen den Kommunikationsstatus mit einer externen, an der MATRIX-Buchse angeschlossenen Matrix-Schalteinheit.
- 28 GPI-Ausgangs-Anzeigen**
 Leuchtet, wenn Steuerimpulse über den GPI-Anschluß ausgegeben werden.
- 29 Eigenprüfschalter (PASS)**
 Durch Setzen der Bitstellen 1 bis 3 auf ON werden jeweils die Y-, C- und K-Videoschaltungen übersprungen. Daher müssen diese Schalter außer bei Durchführung der Eigenprüfung der Einheit stets auf OFF gestellt sein.
- 30 Einstellschalter für Bewegungssignalverzögerung (DELAY)**
 Zur Einstellung der Bewegungssignalverzögerung; dieser Schalter ist ausschließlich für den Sony-Servicetechniker bestimmt.
- 31 Mosaik-H-Startphaseneinsteller (MOSAIC H START)**
 Diese drei Schalter dienen zur Phaseneinstellung der Horizontalstartadresse zur Erzeugung von Mosaikeffekten. Die Schalter sind vertikal angeordnet, wobei dem obersten das höchstwertige Bit zugeordnet ist (Bitstellen 2-4-4). Die Schalterstellungen sind zum Umschalten des Betriebsartes entsprechend zu ändern. (siehe Seite 1-2(G).)
- 32 Mosaik-V-Startphaseneinsteller (MOSAIC V START)**
 Zur Verzögerungseinstellung (0H bis 15H) der Vertikalstartadresse für Erzeugung von Mosaikeffekten. Dieser Schalter ist für den Sony-Servicetechniker bestimmt.
- 33 Rand-V-Phaseneinsteller (BORDER V)**
 Diese drei Schalter dienen zur Einstellung der Vertikalphase des Zusatzrands. Die Schalter sind vertikal angeordnet, wobei dem obersten das höchstwertige Bit zugeordnet ist (Bitstellen 1-4-4). Die Schalterstellungen sind zum Umschalten des Betriebsartes entsprechend zu ändern. (siehe Seite 1-2(G).)
- 34 Rand-H-Phaseneinsteller (BORDER H) (horizontal)**
 Diese drei Schalter dienen zur Einstellung der Horizontalphase des Zusatzrands. Die Schalter sind vertikal angeordnet, wobei dem obersten das höchstwertige Bit zugeordnet ist (Bitstellen 2-4-4). Die Schalterstellungen sind zum Umschalten des Betriebsartes entsprechend zu ändern. (siehe Seite 1-2(G).)
- 35 Eigenprüfschalter (PASS)**
 Durch Setzen der Bitstellen 1 bis 3 auf ON werden jeweils die Y-, C- und K-Videoschaltungen übergangen. Daher müssen diese Schalter außer bei Durchführung der Eigenprüfung der Einheit stets auf OFF gestellt sein.

- 36 Schlagschatten-V-Grenzphaseneinsteller (DROP SHADOW V LIMIT) (vertikal)**
Diese drei Schalter dienen zur Einstellung der Vertikalphase für die Begrenzer zur Verhinderung von Überschreitungen am oberen und unteren Ende des Schlagschattens. Bei diesen vertikal angeordneten Schaltern ist dem oberen das höchstwertige Bit der Phasendaten zugeordnet; der mittlere dient zum Setzen der nächsten vier Bits und der untere zum Setzen der vier niedrigerwertigen Bits. Die Schalterstellungen sind zum Umschalten des Betriebsartes entsprechend zu ändern. (siehe Seite 1-2(G).)
- 37 Schlagschatten-H-Grenzphaseneinsteller (DROP SHADOW H LIMIT) (horizontal)**
Diese drei Schalter dienen zur Einstellung der Horizontalphase für die Begrenzer zur Verhinderung von Überläufen am oberen und unteren Ende des Schlagschattens. Die Schalter sind vertikal angeordnet, wobei dem obersten das höchstwertige Bit zugeordnet ist (Bitstellen 2-4-4). Die Schalterstellungen sind zum Umschalten des Betriebsartes entsprechend zu ändern. (siehe Seite 1-2(G).)

Sonderzubehör-Karten

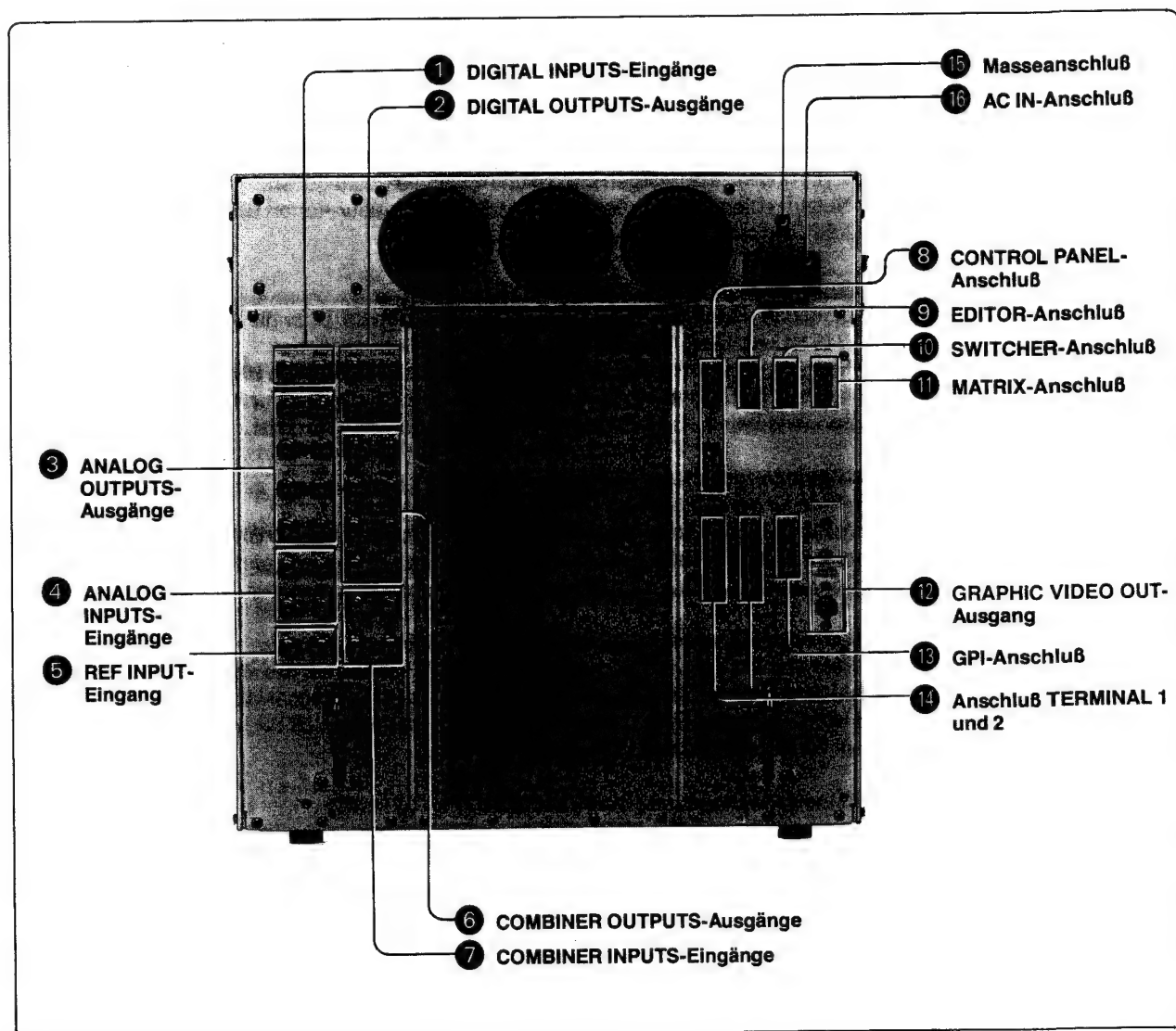
In der folgenden Tabelle sind die Bezeichnungen und Typen der Sonderzubehör-Karten sowie die für sie vorgesehenen Steckplatznummern aufgeführt.

Steckplatz-Nr.	Kartenbezeichnung	Funktion
2	DSC-58 Grafikdisplay-Karte	BKDM-5060
4	ALU-14 Licht-Wischeffekt-Karte	BKDM-5040
5	ALU-13 Karte für nichtlineare Effekte	BKDM-5030
6	ALU-12 Karte für nichtlineare Effekte	BKDM-5030
16	DLP-12 D2-Digitalkombinations-Karte	BKDM-5020
	DLP-11 D1-Digitalkombinations-Karte	BKDM-5021
17	DIF-8 FBAS-Eingangs/Ausgangs-Karte Digital-FBAS-EA-Karte	BKDM-5010 BKDM-5012
	DIF-9 Komponenten-Eingangs/Ausgangs-Karte Digital-Komponenten-Eingangs/Ausgangs-Karte	BKDM-5011 BKDM-5013
18	IF-293 FBAS-Eingangs/Ausgangs-Karte Digital-FBAS-EA-Karte	BKDM-5010 BKDM-5012
	IF-294 Komponenten-Eingangs/Ausgangs-Karte Digital-Komponenten-Eingangs/Ausgangs-Karte	BKDM-5011 BKDM-5013

Zur Beachtung

- Sie müssen die Steckplätze 17 und 18 jeweils mit einer passenden EA-Karte beschalten, da andernfalls diese Einheit und die Bedieneinheit (BKDM-5070) funktionslos bleiben.
- Wählen Sie für jeden der Steckplätze 16 bis 18 die Sonderzubehör-Karte, die für das System vorgeschrieben ist. Durch Austausch der Sonderzubehör-Karten für diese Steckplätze können Sie zwischen den Betriebsarten D1 und D2 umschalten. In einigen Fällen erfordert ein Betriebsartenwechsel u.U. Einstellungsänderungen auf anderen Karten.

1-2-2. Anschlüsse an der Rückseite

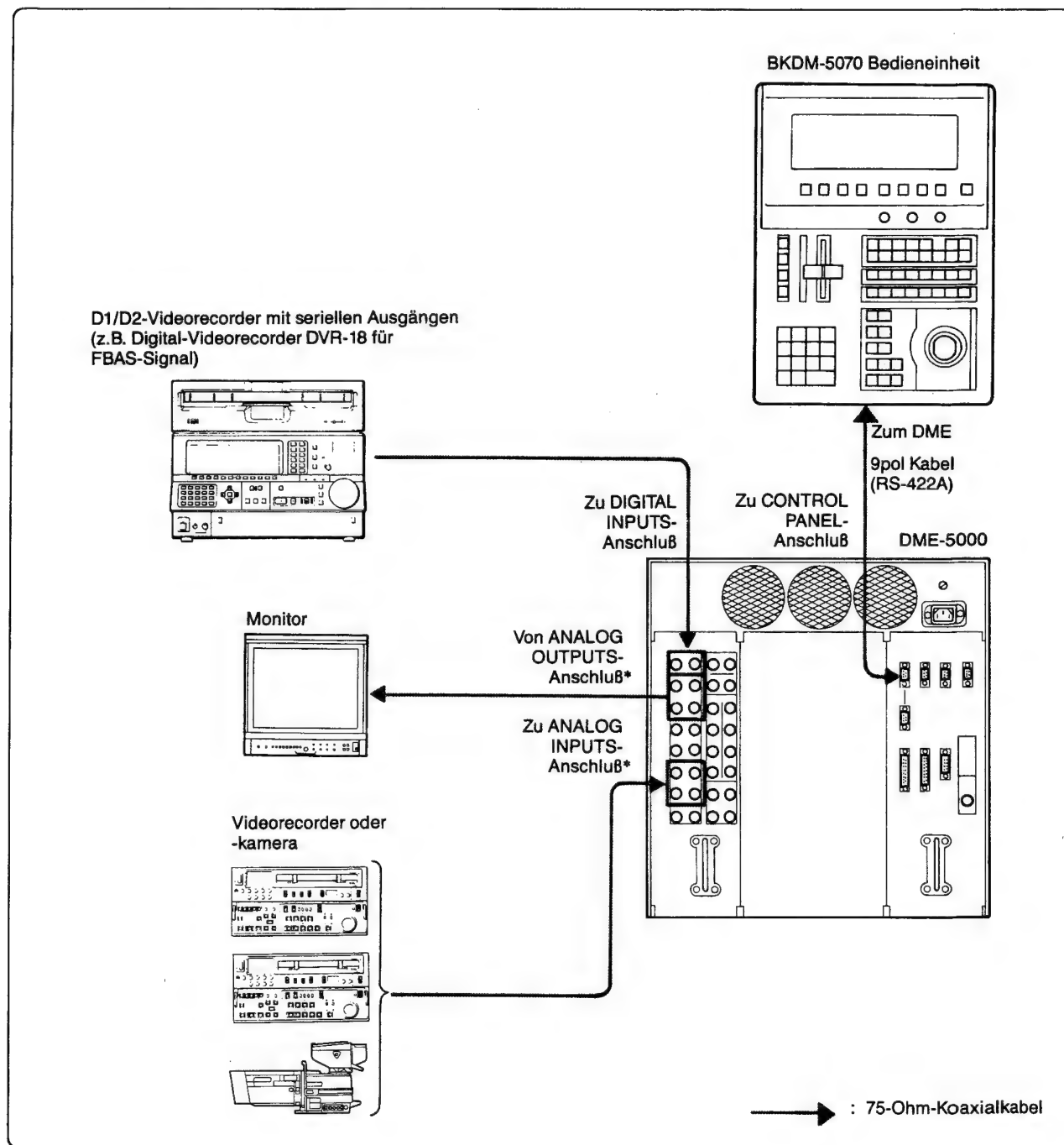


- 1 Digitaleingänge (DIGITAL INPUTS) (BNC)**
 Eingänge für serielle digitale Video- und Tastensignale. Bei einer Phasendifferenz von $-0,9H$ bis $+0,1H$ zwischen den Eingangssignalen und dem Bezugssignal von den REF INPUT-Anschlüssen ⑥ wird die Eingangssignalphase automatisch kompensiert. Zur Nutzung dieser Anschlüsse sind die Sonderzubehör-Karten BKDM-5010/5011/5012/5013 erforderlich.
- 2 Digitalausgänge (DIGITAL OUTPUTS) (BNC)**
 Ausgänge für serielle digitale Video- und Tastensignale. Über die Anschlüsse für Kanal 1 und 2 (CH1 und CH2) werden die gleichen Signale ausgegeben. Zur Nutzung dieser Anschlüsse sind die Sonderzubehör-Karten BKDM-5010/5011/5012/5013 erforderlich.
- 3 Analogausgänge (ANALOG OUTPUTS) (BNC)**
 Ausgänge für serielle analoge Video- und Tastensignale. Über die Anschlüsse für Kanal 1 und 2 (CH1 und CH2) werden die gleichen Signale ausgegeben. Zur Nutzung dieser Anschlüsse sind die Sonderzubehör-Karten BKDM-5010/5011 erforderlich. Insbesondere die R-Y- und B-Y-Anschlüsse sind nur dann benutzbar, wenn die Sonderzubehör-Karte BKDM-5011 in die Einheit eingesetzt ist.
- 4 Analogeingänge (ANALOG INPUTS) (BNC)**
 Eingänge für serielle analoge Video- und Tastensignale. Zur Nutzung dieser Anschlüsse sind die Sonderzubehör-Karten BKDM-5010/5011 erforderlich. Insbesondere die R-Y- und B-Y-Anschlüsse sind nur dann benutzbar, wenn die Sonderzubehör-Karte BKDM-5011 in die Einheit eingesetzt ist.
- 5 Bezugsvideosignaleingang (REF INPUT) (BNC)**
 Ein Paar von Durchschleifanschlüssen dient als Eingang für das analoge Bezugsvideosignal. Das dem einen Anschluß zugeführte Signal läßt sich am anderen abgreifen. Wird nur einer dieser Anschlüsse beschaltet, so ist der andere unbedingt mit einem 75-Ohm-Widerstand abzuschließen.
- 6 Kombinationsausgänge (COMBINER OUTPUTS) (BNC)**
 Ausgang für die seriellen Digitalsignale zur Kombination der Bilder, die von der vorliegenden Einheit und von anderen DME-5000-Einheiten erzeugt werden. Bei Format D1 (Komponentensignale) werden VIDEO und KEYZ genutzt, bei Format D2 (FBAS-Signal) dagegen Y, C, KEY und Z. Über die Anschlüsse für Kanal 1 und 2 (CH1 und CH2) werden die gleichen Signale ausgegeben. Zur Nutzung dieser Anschlüsse sind die Sonderzubehör-Karten BKDM-5020/5021 erforderlich.
- 7 Kombinationseingänge (COMBINER INPUTS) (BNC)**
 Eingang für die seriellen Digitalsignale zur Kombination der Bilder, die von der vorliegenden Einheit und von anderen DME-5000-Einheiten erzeugt werden. Das Kombinationsbild wird über COMBINER OUTPUTS-Anschluß ⑥ ausgegeben. Bei Format D1 (Komponentensignale) werden VIDEO und KEYZ genutzt, bei Format D2 (FBAS-Signal) dagegen Y, C, KEY und Z. Über die Anschlüsse für Kanal 1 und 2 (CH1 und CH2) werden die gleichen Signale ausgegeben. Zur Nutzung dieser Anschlüsse sind die Sonderzubehör-Karten BKDM-5020/5021 erforderlich.
- 8 Anschluß für Bedieneinheit (CONTROL PANEL) (D-Sub, 9pol)**
 Ein Paar von Durchschleifanschlüssen zum Anschluß an Bedieneinheit BKDS-8010 oder BKDM-5070 (Sonderzubehör). Sie können maximal vier DME-5000-Einheiten über ihre CONTROL PANEL-Durchschleifanschlüsse von einer externen Bedieneinheit aus ansteuern. Diese Anschlüsse entsprechen der RS422-A-Norm.

- 9 **Editieranschluß (EDITOR) (D-Sub, 9pol)**
Diese Buchse dient zum Anschluß externer Ausrüstungen (z.B. von der Schnitt-
Steuereinheit BVE-9000) zur Steuerung der DME-5000.
Diese Buchse erfüllt die Norm RS-422A.
- 10 **Anschluß für Schalteinheit (SWITCHER) (D-Sub, 9pol)**
Falls Sie diese Buchse mit der DVS-8000/8000C Digital-Video-Schalteinheit verbinden, so
läßt sich einer der vier internen Hilfsbusse (AUX 1 bis 4) der Schalteinheit über die
vorliegende Einheit ansteuern.
- 11 **Anschluß für Matrix-Schalteinheit (MATRIX) (D-Sub, 9pol)**
Falls Sie diese Buchse mit einer Matrix-Schalteinheit verbinden, so lassen sich über die
Matrix-Schalteinheit Eingangssignale für die Einheit schalten.
- 12 **Ausgang für Videosignal (GRAPHIC VIDEO OUT) (BNC)**
Ausgangs für das analoge Videosignal (monochrom) zur Ansteuerung eines
Videomonitors. Zur Nutzung dieses Anschlusses ist die Sonderzubehör-Karte BKDM-5060
erforderlich.
- 13 **Anschluß für Universal-EA-Bus (GPI) (D-Sub, 15pol)**
Ein-/Ausgang für (jeweils bis zu vier) Triggersignale von/zu einer externen Komponente.
Sie können die Bedingungen für Ein- und Ausgabe jedes Triggersignals einstellen.
- 14 **Prüfanschlüsse (TERMINAL 1 und 2) (D-Sub, 25pol)**
Diese Anschlüsse werden mit den entsprechenden Steueranschlüssen verbunden, wenn
die Einheit zu initialisieren oder zu prüfen ist.
- 15 **Masseanschluß**
Über diesen Anschluß wird das System an Masse gelegt.
- 16 **Netzanschlußbuchse (AC IN)**
Verbinden Sie diesen Anschluß über das mitgelieferte Stromversorgungskabel mit einer
geeigneten Wechselstromversorgung.

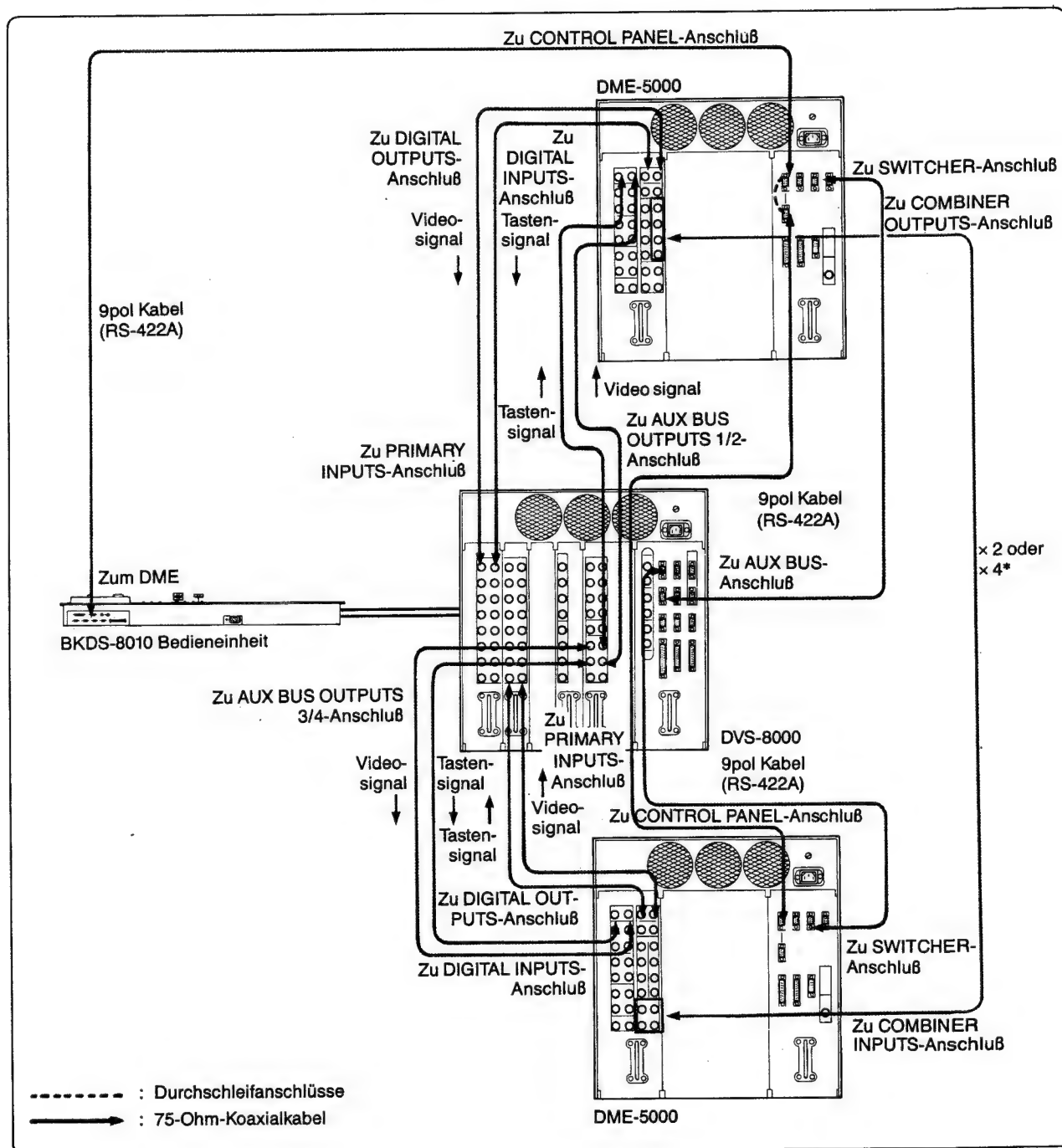
1-3. Systemanschlüsse

1-3-1. Anschluß an spezielle Bedieneinheit und EA-Komponente



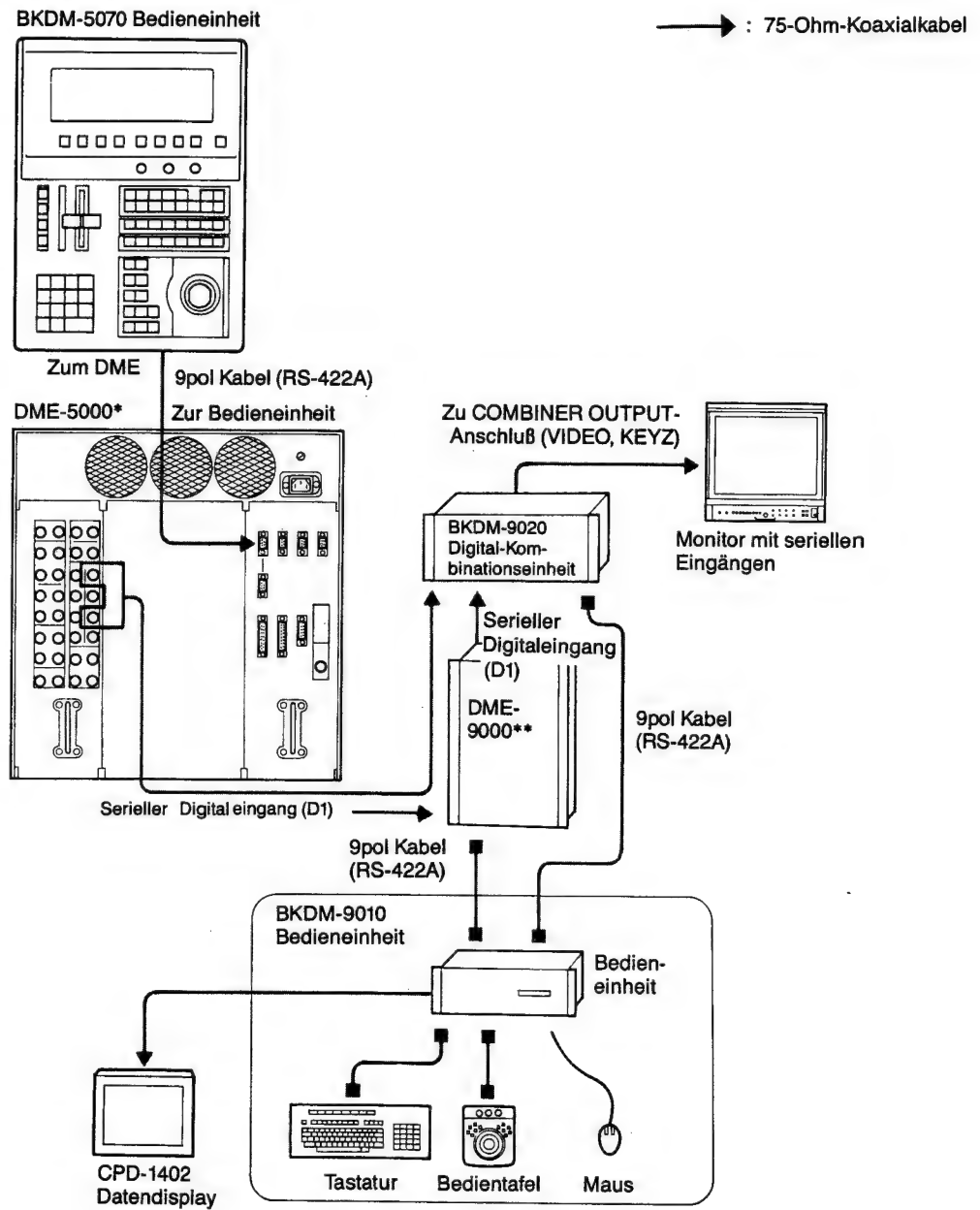
* Für Ein-/Ausgabe von Komponentensignalen müssen Sie die Anschlüsse Y, R-Y, B-Y und KEY verwenden und für FBAS-Signale die Anschlüsse VIDEO und KEY.

1-3-2. Anschluß an DVS-8000/8000C Digital-Video-Schalteinheit



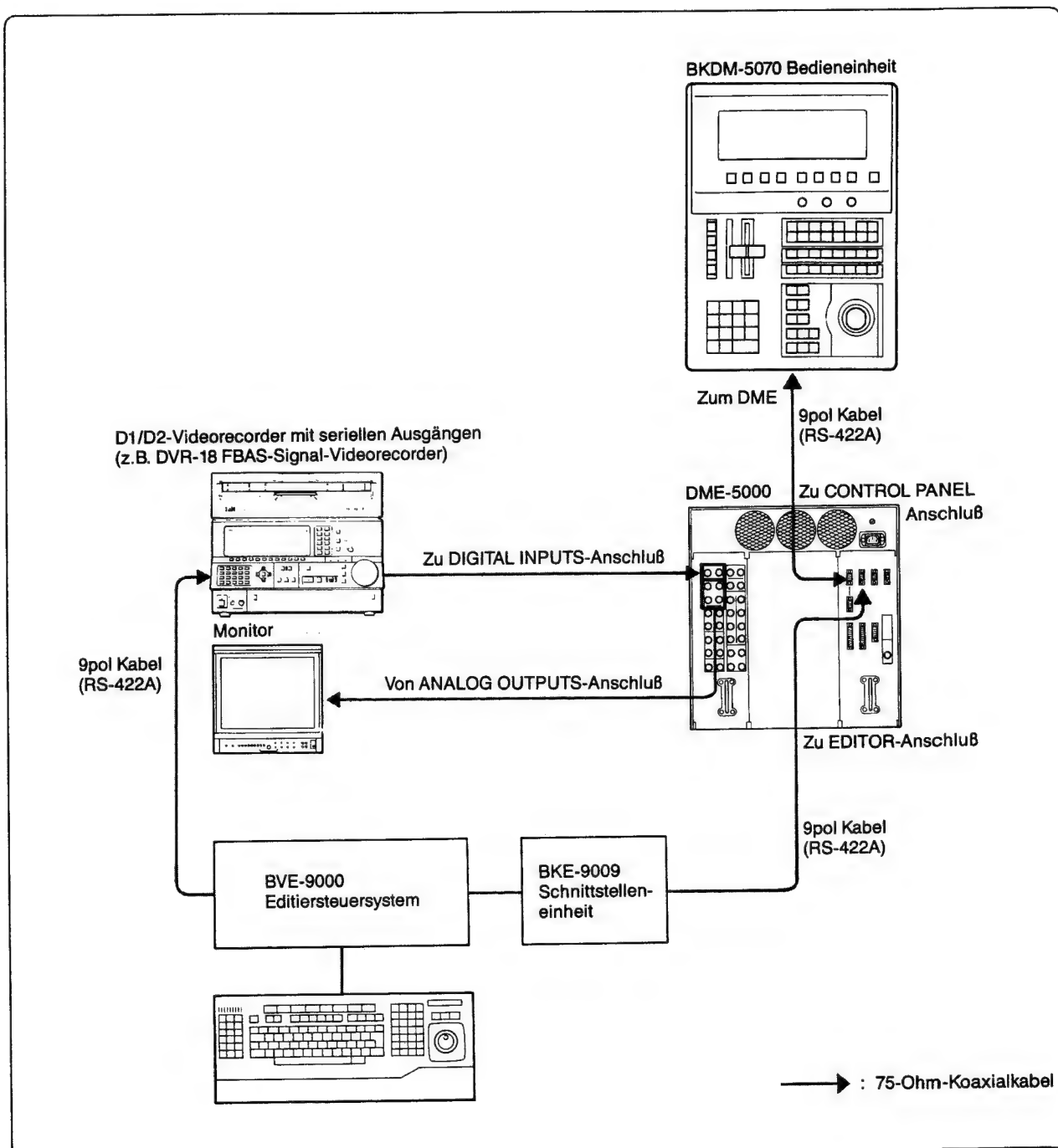
* Für D1-Betrieb: Anschlüsse COMBINER OUTPUTS (VIDEO und KEYZ) und COMBINER INPUTS (VIDEO und KEYZ) über zwei Kabel miteinander verbinden.
 Für D2-Betrieb: Anschlüsse COMBINER OUTPUTS (Y, C, KEY und Z) und COMBINER INPUTS (Y, C, KEY und Z) über vier Kabel miteinander verbinden.

1-3-3. Anschluß an DME-9000 Digital-Multieffektor (für D1-Betrieb)

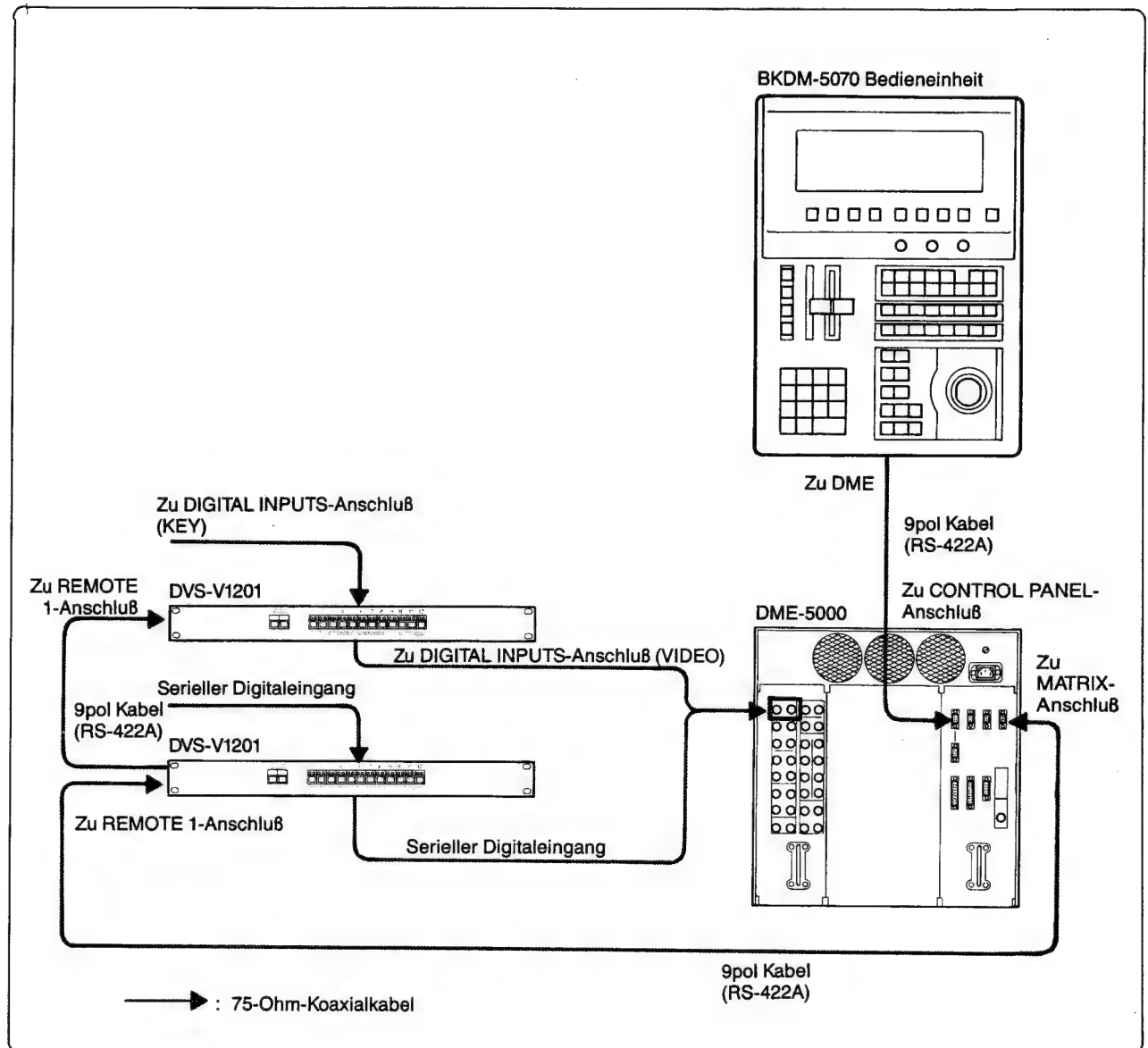


* DME-5000 erfordert Sonderzubehör-Karte BKDM-5021
 ** DME-9000 erfordert Sonderzubehör-Karte BKDM-9023

1-3-4. Anschluß an BVE-9000 Editiersteuersystem



1-3-5. Anschluß an DVS-V1201 Digital-Video-Signalwegschalteinheit



1-4. Technische Daten

Allgemeines

Anschlußwerte	85 bis 132/170 bis 265 V, automatische Umschaltung
Leistungsaufnahme	ca. 500 W (bei allen Beschaltungsmöglichkeiten)
Temperatur	
Lagerung	- 20 bis + 55 °C
Betrieb	5 bis 40 °C
Betrieb innerhalb Spezifikation	10 bis 35 °C
Feuchtigkeit	
Betrieb	80 % relativ oder darunter
Betrieb innerhalb Spezifikation	70 % relativ oder darunter
Abmessungen (B/H/T)	424 × 443 × 450 mm ohne vorstehende Teile
Gewicht	50 kg

Ein-/Ausgänge

DIGITAL INPUTS	Komponentensignal	
	VIDEO	Für seriellcs Digital-Eingangssignal, BNC (1), 75 Ohm
	KEY	Für seriellcs Digital-Eingangssignal, BNC (1), 75 Ohm
	FBAS	
	VIDEO	Für seriellcs Digital-Eingangssignal, BNC (1), 75 Ohm
	KEY	Für seriellcs Digital-Eingangssignal, BNC (1), 75 Ohm
	DIGITAL OUTPUTS	
	Komponentensignal	
	VIDEO	Für seriellcs Digital-Ausgangssignal, BNC (2), 75 Ohm
	KEY	Für seriellcs Digital-Ausgangssignal, BNC (2), 75 Ohm
ANALOG INPUTS	Komponentensignal	
	Y, R-Y, B-Y, KEY	
	Für Betacam- oder SMPTE-Komponentensignale, BNC (4)	
	FBAS	
	VIDEO	Für analoge FBAS-Eingangssignale, BNC (1)
	KEY	VS: 1 Vss, BNC (1)
	ANALOG OUTPUTS	
	Komponentensignal	
	Y, R-Y, B-Y, KEY	
	Für Betacam- oder SMPTE-FBAS-Ausgangssignal (nur Y mit Synchronsignal), BNC (8)	
	FBAS	
	VIDEO	Für analoges FBAS-Ausgangssignal, BNC (2)
	KEY	VS: 1 Vss, BNC (2)

REF INPUT	Komponentensignal Für analoges Bezugseingangssignal, BNC (2) Schwarzsynchronsignal oder FBAS-Synchronsignal FBAS Für analoges Video-Eingangsbezugssignal, BNC (2) Schwarzsynchronsignal
COMBINER INPUTS	Komponentensignal VIDEO, KEYZ Für serielles Digital-Eingangssignal, BNC (2) FBAS Y, C, KEY, Z Für serielles Digital-Eingangssignal, BNC (4)
COMBINER OUTPUTS	Komponentensignal VIDEO, KEYZ Für serielles Digital-Ausgangssignal, BNC (4) FBAS Y, C, KEY, Z Für serielles Digital-Ausgangssignal, BNC (8)
GRAPHIC VIDEO OUT	Für analog Videoausgangssignale (monochrom), BNC (1)

Fernbediensignale

CONTROL PANEL	entspricht Norm RS-422A (D-Sub, 9pol)
EDITOR	entspricht Norm RS-422A (D-Sub, 9pol)
SWITCHER	entspricht Norm RS-422A (D-Sub, 9pol)
MATRIX	entspricht Norm RS-422A (D-Sub, 9pol)
TERMINAL 1	entspricht Norm RS-232C (D-Sub, 25pol)
TERMINAL 2	entspricht Norm RS-232C (D-Sub, 25pol)
GPI	4 Eingänge und 4 Ausgänge, programmierbar (D-Sub, 15pol)

Leistungsverhalten

FBAS	
Linearität	DG: 2 % max. DP: 2 ° max. (RAMP-Signal, überlagert mit 40-IRE-Hilfsträger)
Frequenzgang	+ 0,25 dB, 200 kHz bis 4,2 MHz
Impulsenndaten	K: 1 % max. 2T-Impuls
Rauschabstand	über 52 dB
Komponentensignal	
Frequenzgang	Y: + 0,5 dB, 200 kHz bis 5,5 MHz R-Y/B-Y: + 0,1 dB, 200 kHz bis 2,5 MHz
Impulsenndaten	K: 1 % max. 2T-Impuls
Rauschabstand	über 55 dB

Abtastfrequenzen

Taktsignal	D2-FBAS-Signal: 14,3 MHz D1-Komponentensignal: 13,5 MHz
Quantisierung	Analog: 9 Bits Digital EA: 10 Bits (8 Bit im Speicher)

Absorption der Eingangsphasendifferenz

Zulässiger Eingangsfehler	– 56 µs bis + 6 µs pro Vollbild
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Zubehör

Gestelleinbauwinkel (1 Satz, am Gehäuse befestigt)
EX-270 Erweiterungskarte (1)
Netzkabel (1)
Steckeradapter für Netzkabel (1)
75-Ohm-Abschlußwiderstand (1)
Bedienungs- und Wartungsanleitung (1)

Empfohlene Zusatzkomponenten

BKDM-5070 Bedieneinheit für DME-5000
DVS-8000/8000C Digital-Video-Schalteinheit
BKDS-8010 Bedieneinheit für DVS-8000/8000C
BVE-9000 Editiersteuersystem

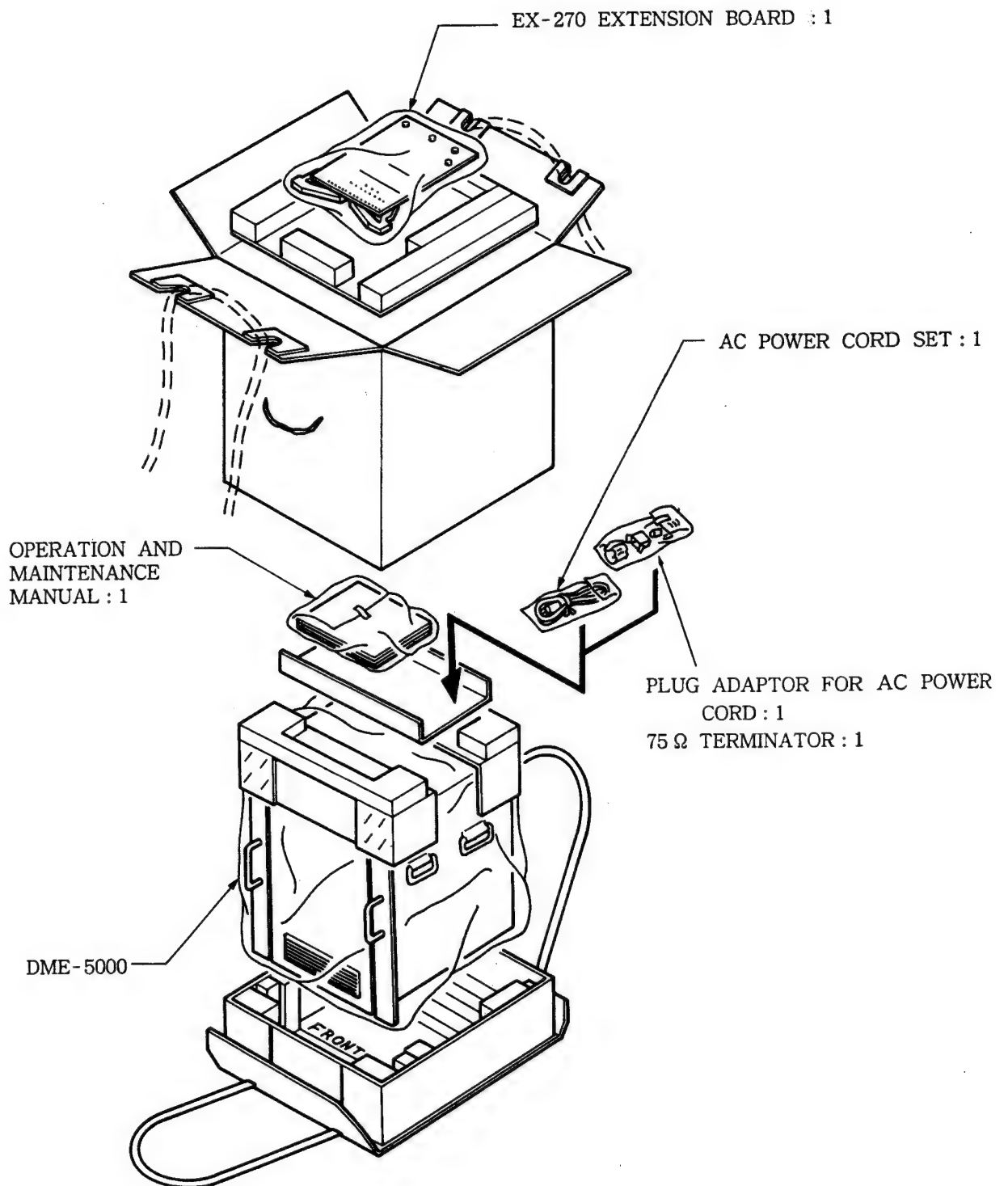
Sonderzubehör-Karten

BKDM-5010 FBAS-Eingangs/Ausgangs-Karte
BKDM-5011 Komponenten-Eingangs/Ausgangs-Karte
BKDM-5012 Digital-FBAS-EA-Karte
BKDM-5013 Digital-Komponenten-Eingangs/Ausgangs-Karte
BKDM-5020 D2-Digitalkombinations-Karte
BKDM-5021 D1-Digitalkombinations-Karte
BKDM-5030 Karte für nichtlineare Effekte
BKDM-5040 Licht-Wischeffekt-Karte
BKDM-5060 Grafikdisplay-Karte

Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

SECTION 2 INSTALLATION

2-1. UNPACKING AND REPACKING



2-2. OPERATING ENVIRONMENT

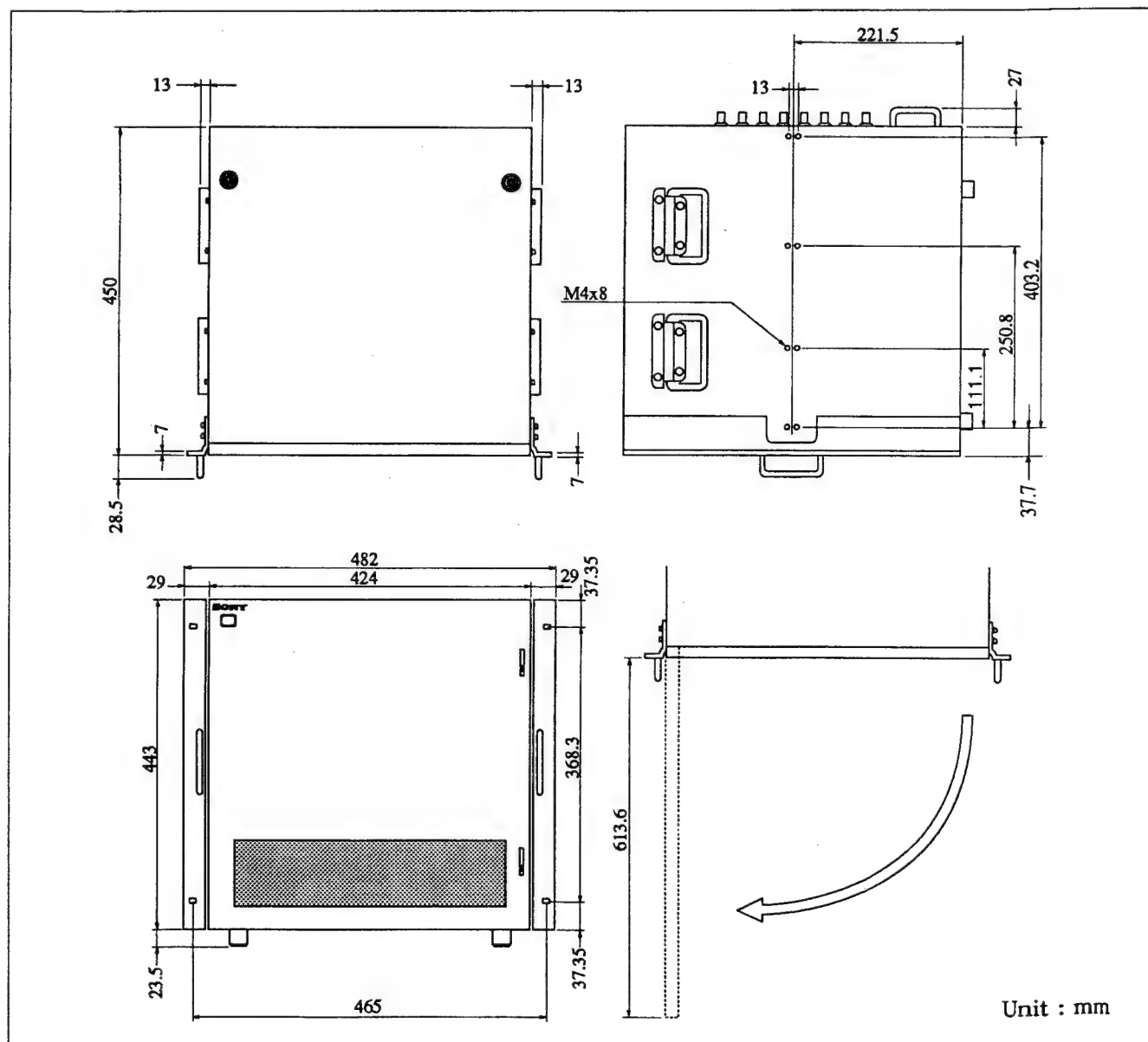
- Take special care regarding the air circulation of the installation site to prevent the inside temperature of the unit from rising. Make sure not to block the ventilation holes on the unit.
- The operating ambient temperature of the unit is 5°C to 40°C. Do not install the unit near a heat source.

2-4. POWER VOLTAGE

- The DME-5000 power uses a switching regulator and is designed for use with 100V to 115V (SY), 220V to 240V (EK). Therefore, you can use the unit in the 100V to 115V, 220V to 240V range without changing the power voltage.

2-3. EXTERNAL DIMENSIONS

- The external dimensions of the unit are given below.



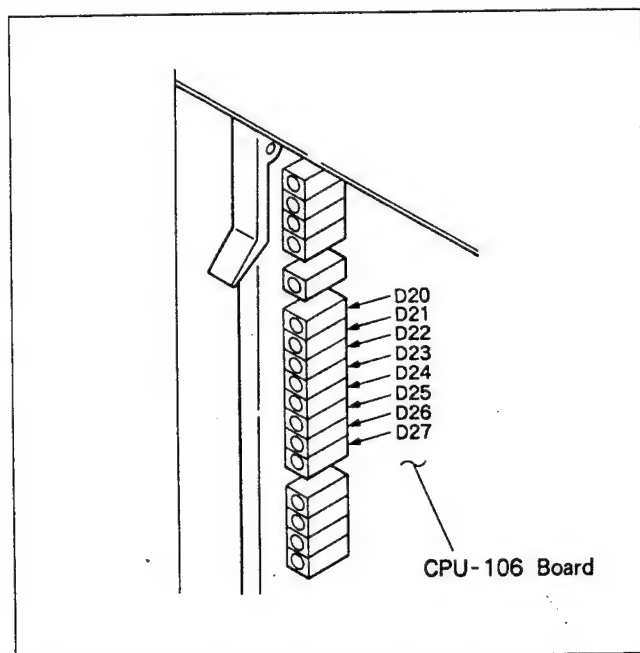
2-5. CONFIRMATION AND ADJUSTMENT AT INSTALLATION TIME

2-5-1. Setting the Power Voltage

After installing the unit, check the power voltage inside the unit.

(1) Open the front panel. Check whether the power unit is properly inserted and fixed with 4 screws shown the arrows of front side (+ PWH4x8).

(2) Turn ON the power and see whether the operation indicator LEDs (D20 to D27) on the edge of the CPU-106 board flash sequentially.



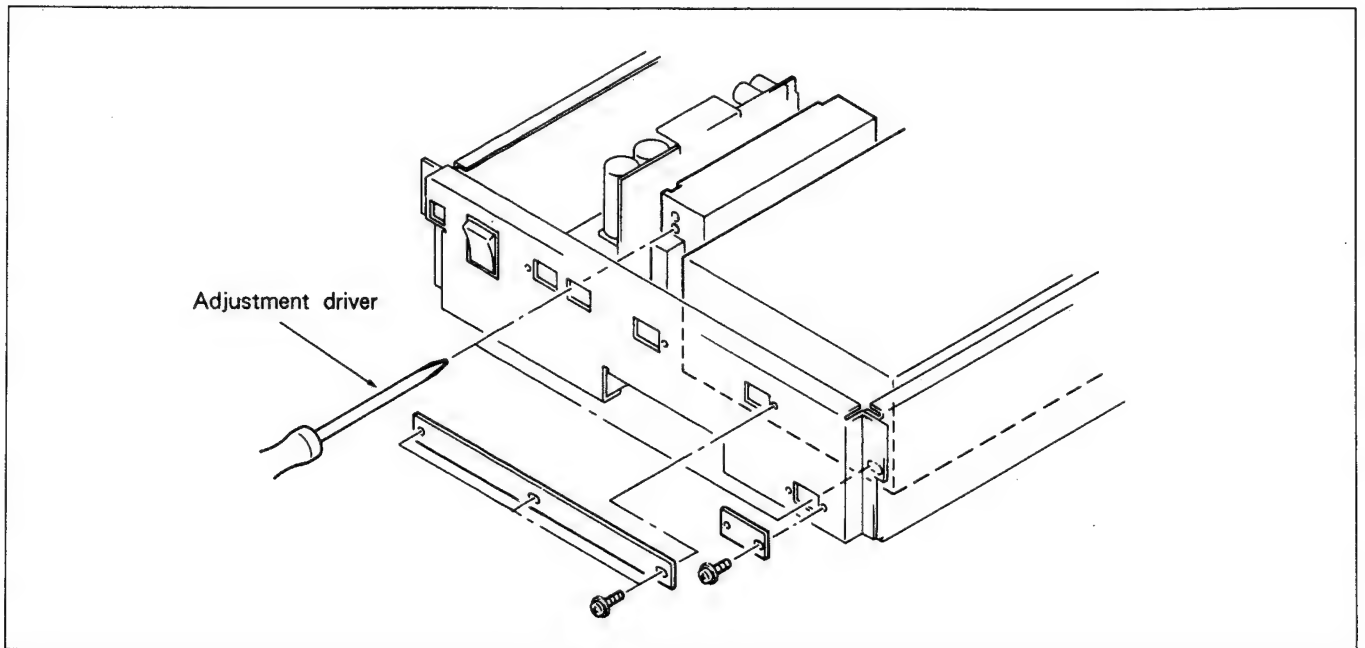
* If none of the lamps light, there is no power voltage (+5V) output. If none of the lamps light and the fan is rotating, the +5V supply is defective. If none of the lamps light and the fan does not rotate, the primary side of the power unit is defective. If the lamps light and the LEDs stop flashing, this could mean a CPU-106 board error or voltage error in the +5V and $\pm 12V$ supplies. Check and adjust the voltage using the procedure given below.

- ① See Section "3-5. How to Use the Extension Board" to connect the IF-293 board (slot No. 18) and the extension board.
- ② Measure the +5V at TP-1 (GND) and TP-2 (+5V) on the extension board and make sure you get $+5V \pm 0.05V$.
- ③ Measure TP-3 (+12V), TP-6 (GND), and TP-9 (-12V) on the extension board and make sure you get $+12V \pm 0.1V$ and $-12V \pm 0.1V$ respectively.
- ④ Measure the -5V at TP-1 (GND) and TP-12 (-5V) on the extension board and make sure you get $-5V \pm 0.05V$.

⑤ If the measured values differ from the specified values, adjust the voltage using the procedure given below. Adjust the digital voltmeter while connecting it to the TPs mentioned above.

1. Remove the adjustment window cover of the power unit.
2. Insert an adjustment driver through the adjustment window and turn the voltage adjustment volume of the corresponding switching regulator. Observing the digital voltmeter reading, adjust the voltage until you obtain the proper voltage.

Note : Set the power voltage with all the card boards inserted in their locations (excluding the option boards).



2-5-2. How to Install the Card Boards

Each printed circuit board must be installed in a designated slot of the DME-5000. Check whether each printed circuit board is installed in the proper slot as indicated in the table below.

Slot No.	Board Name	Slot No.	Board Name
1	CPU-106	14	DPR-42 FMY-10
2	DSC-58 (BKDM-5060)	15	DPR-16
3	Option Board	16	DLP-12 (BKDM-5020)
4	ALU-14 (BKDM-5040)		*DLP-11 (BKDM-5021)
5	ALU-13 (BKDM-5030)	17	DIF-8 (BKDM-5010 or -5012)
6	ALU-12 (BKDM-5030)		*DIF-9 (BKDM-5011 or -5013)
7	ALU-11		
8	DPR-18	18	IF-293 (BKDM-5010 or -5012)
9	DPR-17		*IF-294 (BKDM-5011 or -5013)
10or12	MEM-41 (YorK)		
11	MEM-41(C)		
13	DLP-9, 10		

*: Used by D1 mode.

- The name of the printed circuit board and the slot number in which the board can be installed are indicated on both sides A and B of the upper portion of the board toward you.

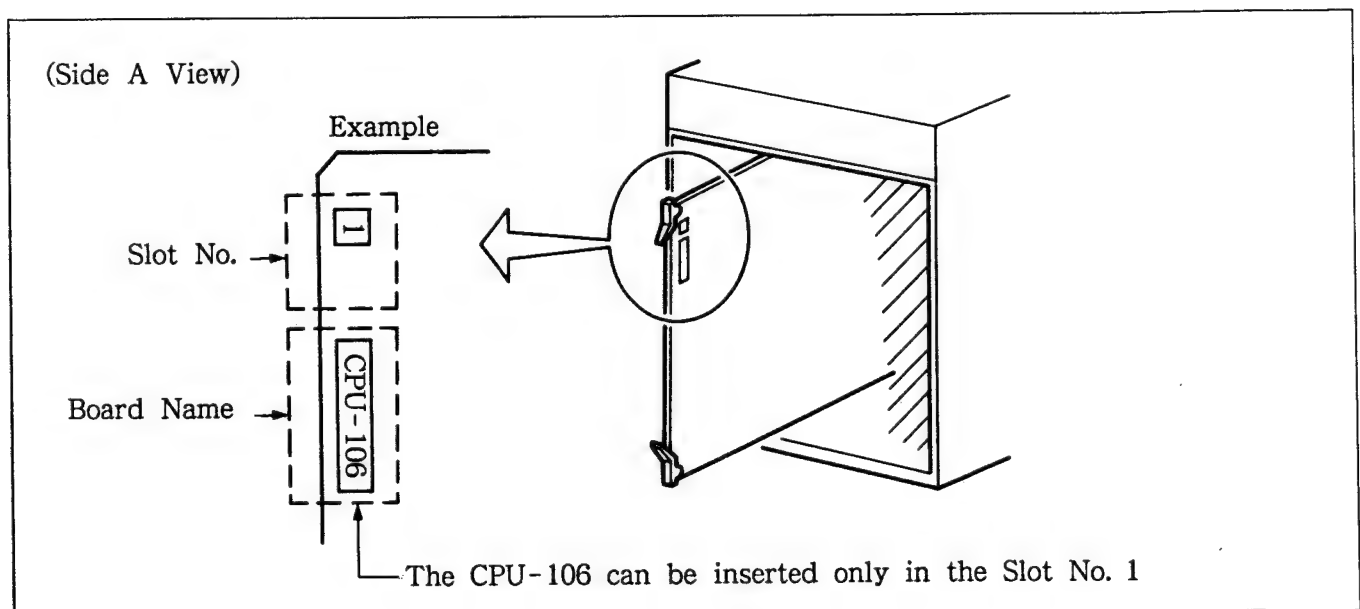
(See the illustration below.)

- The DME-5000 can accommodate various systems and expand its functions by installation of option boards. Install each option board in the designated range and sequence in accordance with the slot number indicated on the upper portion of the board toward you, in the same way as the main printed circuit boards.

Note 1) Check whether the connectors of each printed circuit board are properly connected to the MB-305 board of the main body.

Note 2) If the printed circuit boards are installed in a wrong sequence, system error will occur and the unit will not operate properly.

Note 3) When you add an option board or when you adjust a printed circuit board, make sure to check the power voltage.



2-5-3. Multi Channel Setting

When multiple DME-5000 units are connected and are being used in the multiple mode, it is necessary to give each DME unit a unit ID No. so that the DME channels won't overlap.

Since the unit ID No. is each DME's recognition number it corresponds to a physical ch. No. on the SETUP menu on the control panel (BKDS-8010, BKDM-5070). Setting this unit ID No. is accomplished by the following procedure.

- (1) Remove the CPU-106 board from slot No.1.
- (2) Set the S2 switch's bit 5 - bit 8 in the center of the board as follows.

UNIT ID NO.	bit 5	bit 6	bit 7	bit 8
1	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
16	ON	ON	ON	ON

Note : Set the unit ID No. so that the same number is not repeated.

- (3) Assigning to the logical ch No.(only when necessary).

The unit ID numbers set on the S2 switch are automatically assigned logical ch numbers as physical ch numbers of the SETUP menu.

However, if you want to change one to an original logical ch number, it is possible to do this with the SETUP menu on the control panel (BKDS-8010, BKDM-5070).

<SETUP menu's operation procedure>

- Press SET/DIAG (SETUP & DIAG)
- Select F1 (Setup)
- Select F3 (DME)
- Select F1 (Config)
- Select F3 (CH Assign)

Note : Refer to the user's manual for details on the operation of the SETUP menu.

2-5-4. Confirmation at the Combiner Board Installation

When installing the optional combiner board (BKDM-5020/5021), make sure to confirm by the following procedure whether the combiner's order has been properly set.

- (1) On the control panel's (BKDS-8010, BKDM-5070) SETUP menu, confirm the combiner connection order. This order must correspond with the actual input/output connection order of the combiner. If it doesn't, redo the order with the SETUP menu.

<SETUP menu's operation procedure>

- Press SET/DIAG (SETUP & DIAG)
- Select F1 (Setup)
- Select F3 (DME)
- Select F1 (Config)
- Select F5 (Combiner)

Note : Refer to the user's manual for details on the operation of the SETUP menu.

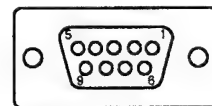
2-6. CONNECTORS

When you connect a cable to the connector on the rear panel during installation or maintenance service, use the hardware listed below or equivalent.

Panel Display	Connecting Connectors /Part No.
DIGITAL INPUTS	BNC Connector 1-560-009-11
DIGITAL OUTPUTS	
ANALOG INPUTS	
ANALOG OUTPUTS	
COMBINER INPUTS	
COMBINER OUTPUTS	
REF INPUT	
TERMINAL 1	D-SUB 25P 1-556-356-11
TERMINAL 2	
GPI	D-SUB 15P 1-566-355-11
CONSOLE	D-SUB 9P 1-566-354-11
EDITOR	
AUX1	
AUX2	
GRAPHIC VIDEO OUT	BNC Connector 1-560-009-11

2-7. INPUT/OUTPUT SIGNALS OF CONNECTOR

- DIGITAL INPUTS
BNC connector, 75 Ω terminal
- ANALOG INPUTS
BNC connector, 75 Ω terminal
- COMBINER INPUTS
BNC connector, 75 Ω terminal
- REF INPUTS
BNC connector, 75 Ω terminal
- DIGITAL OUTPUTS
BNC connector, 75 Ω terminal
- ANALOG OUTPUTS
BNC connector, 75 Ω terminal
- COMBINER OUTPUTS
BNC connector, 75 Ω terminal
- GRAPHIC VIDEO OUTPUT
BNC connector, 75 Ω terminal
- CONTROL PANEL (RS-422)

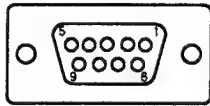


—EXT VIEW—

(FEMALE)

Pin No.	Signal	Function
1	FG	Frame ground
2	TXA -	Transmit data (-) to control panel
3	RXB +	Receive data (+) from control panel
4	GND	Ground
5	NC	Not used
6	GND	Ground
7	TXB +	Transmit data (+) to control panel
8	RXA -	Receive data (-) from control panel
9	FG	Frame ground

• EDITOR (RS-422)

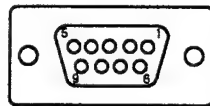


—EXT VIEW—

(FEMALE)

Pin No.	Signal	Function
1	FG	Frame ground
2	TXA -	Transmit data (-) to editor
3	RXB +	Receive data (+) from editor
4	GND	Ground
5	NC	Not used
6	GND	Ground
7	TXB +	Transmit data (+) to editor
8	RXA -	Receive data (-) from editor
9	FG	Frame ground

• SWITCHER (RS-422)

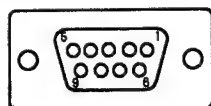


—EXT VIEW—

(FEMALE)

Pin No.	Signal	Function
1	FG	Frame ground
2	RXB +	Receive data (+) from switcher
3	TXA -	Transmit data (-) to switcher
4	GND	Ground
5	NC	Not used
6	GND	Ground
7	RXA -	Receive data (-) from switcher
8	TXB +	Transmit data (+) to switcher
9	FG	Frame ground

• MATRIX (RS-422)

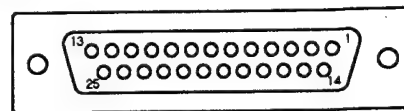


—EXT VIEW—

(FEMALE)

Pin No.	Signal	Function
1	FG	Frame ground
2	RXB +	Receive data (+) from matrix switcher
3	TXA -	Transmit data (-) to matrix switcher
4	GND	Ground
5	NC	Not used
6	GND	Ground
7	RXA -	Receive data (-) from matrix switcher
8	TXB +	Transmit data (+) to matrix switcher
9	FG	Frame ground

• TERMINAL 1 (RS-232C)

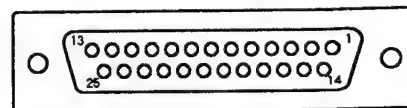


—EXT VIEW—

(FEMALE)

Pin No.	Signal	Function
1	FG	Frame ground
2	RXD	Receive data from terminal
3	TXD	Transmit data to terminal
4~6	NC	Not used
7	GND	Ground
8~25	NC	Not used

• TERMINAL 2 (RS-232C)

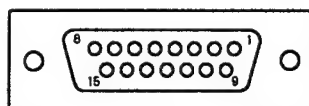


—EXT VIEW—

(FEMALE)

Pin No.	Signal	Function
1	FG	Frame ground
2	RXD	Receive data from terminal
3	TXD	Transmit data to terminal
4~6	NC	Not used
7	GND	Ground
8~25	NC	Not used

- GPI (RS-422)



—EXT VIEW—

(FEMALE)

Pin No.	Signal	Pin No.	Signal
1	FG	9	GPI01G
2	GPI01	10	GPI02G
3	GPI02	11	GPI03G
4	GPI03	12	GPI04G
5	GPI04	13	GPIIG
6	GPII1	14	GPII2
7	GPII3	15	GPII4
8	GPIIG		

2-8. RACK MOUNTING

The DME-5000 can be used by mounting it on a 19-inch standard rack. When you use the rack, make sure to use the optional RMM-18DV rack mount rail.

< Items to be procured for mounting >

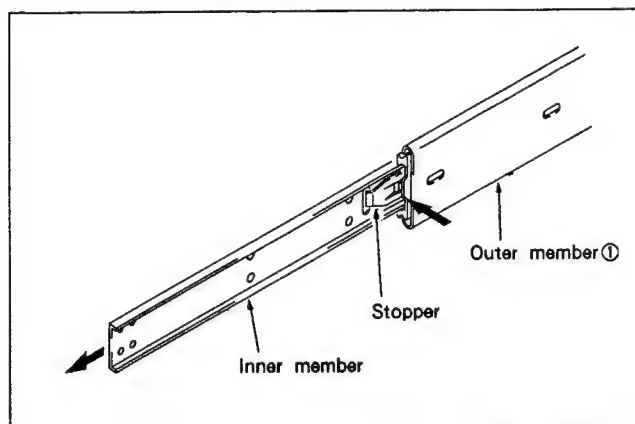
- RMM-18DV rack mount rail
- Screws for attaching the plate nut (+ B4x8) 8 pieces
- Rack mount screws (+ RK5x16) 4 pieces
- Rack mount decoration washers 4 pieces
(Sony part number 2-297-913-01)

< Precautions on installation >

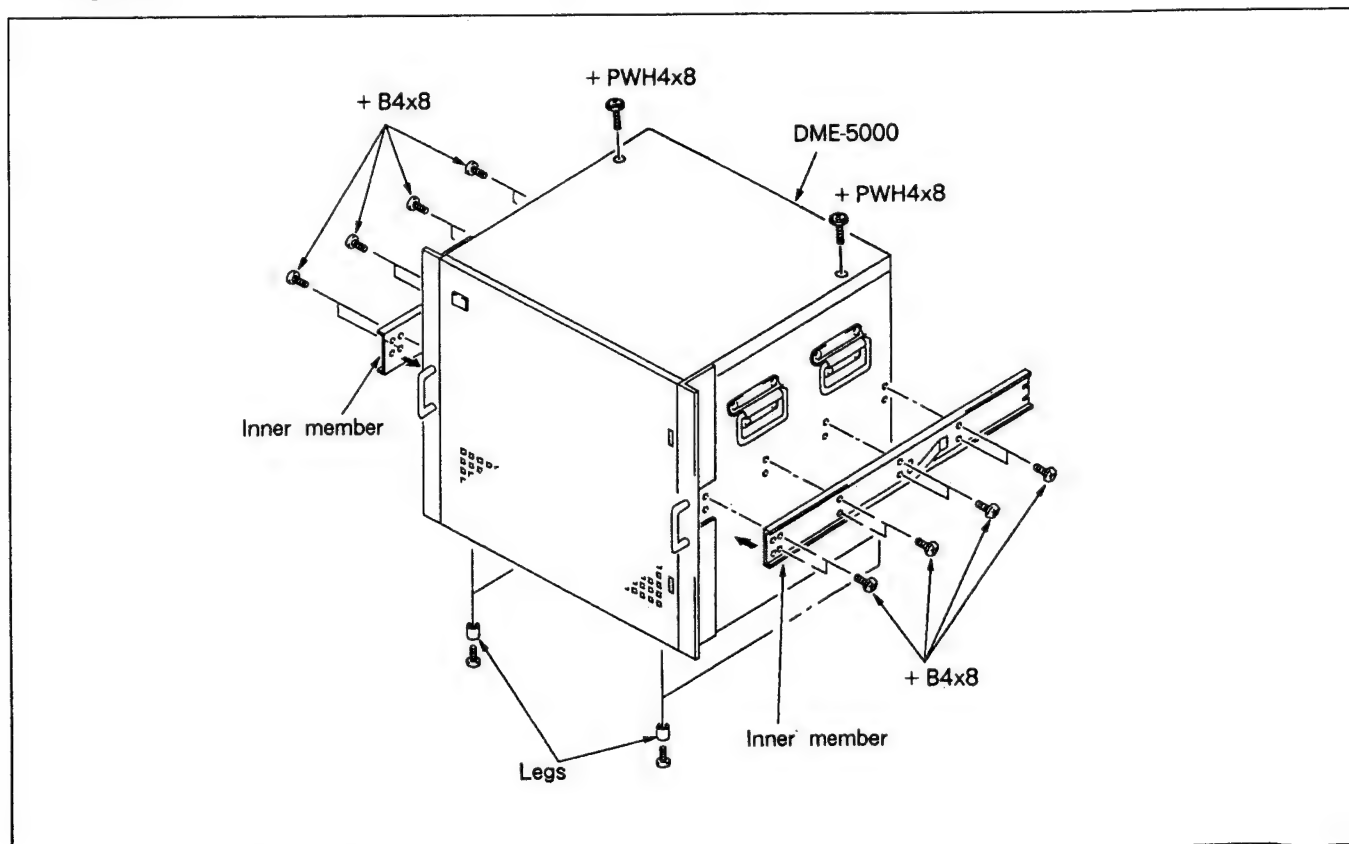
- (1) When you install the DME-5000 and related units in the 19-inch standard rack, it is recommended that you install a ventilation fan to prevent the temperature in the rack from rising. Make sure that all the units in the rack operate in the temperature range of 5°C to 40°C.
- (2) When you install the unit in the rack, make sure to use the specified rail. The unit cannot be secured to the rack by the rack angles alone and such an installation is hazardous.
- (3) It is recommended to fix the rack to a solid floor with bolts. It is hazardous if the rack falls on you when you remove the unit from the rack.
- (4) The package of RMM-18DV rack mount rail contains a supplied installation manual. That manual, however, contains instructions for installing the DVR series VTRs on the rack. Since the procedure for mounting the DME-5000 differs partly from the procedure for mounting the VTR, use the procedure given in this manual instead.

< Installation method >

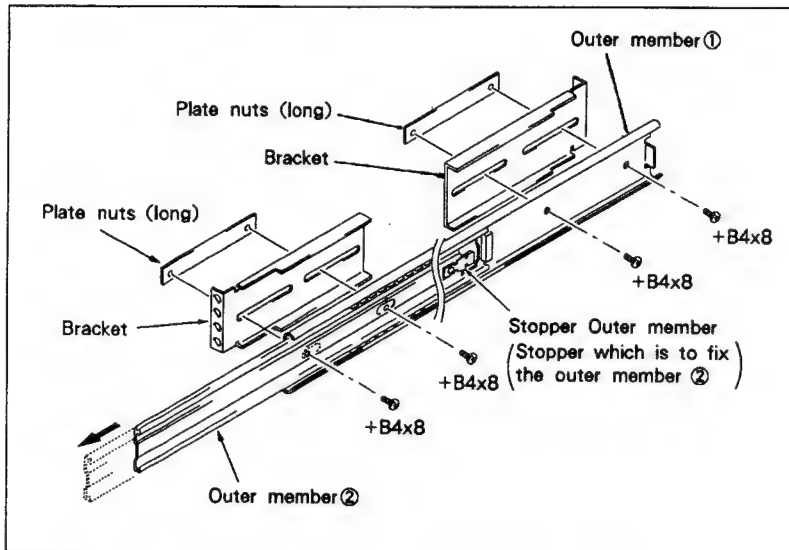
- (1) While pressing the stopper of the RMM-18DV rack mount rail, pull out the inner member.



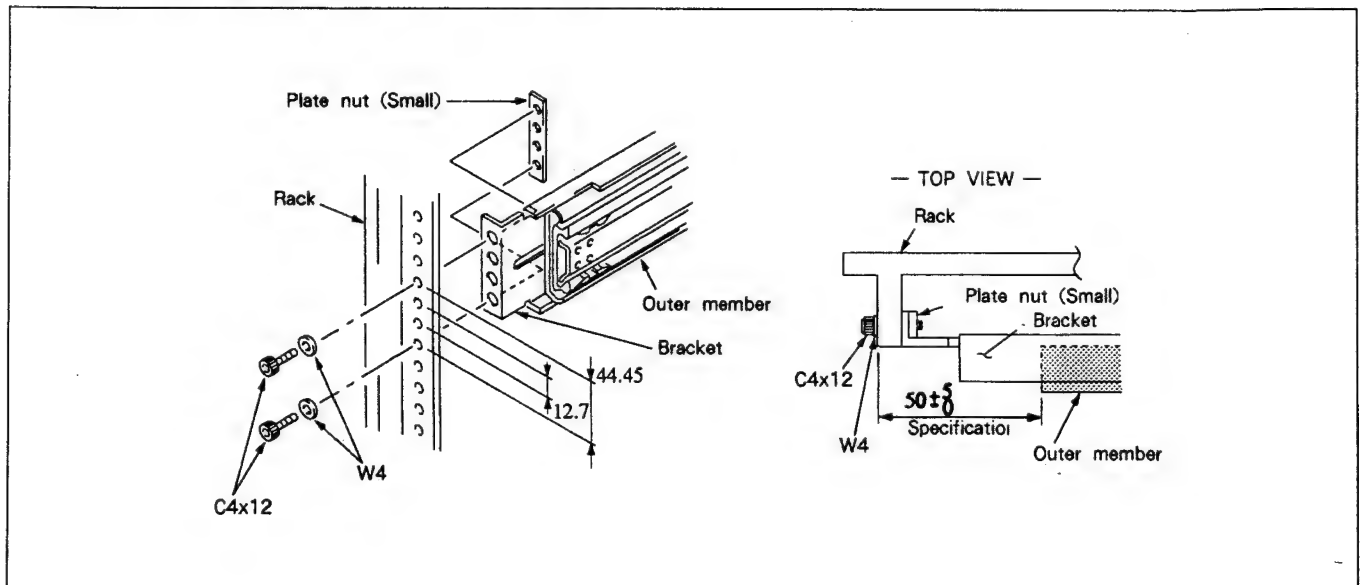
- (2) Use the 16 screws (+ B4x8) supplied with the RMM-18DV to attach the inner member to the unit. Remove the 2 screws (+ PWH4x8) on the top panel. Remove the legs of the unit as required.



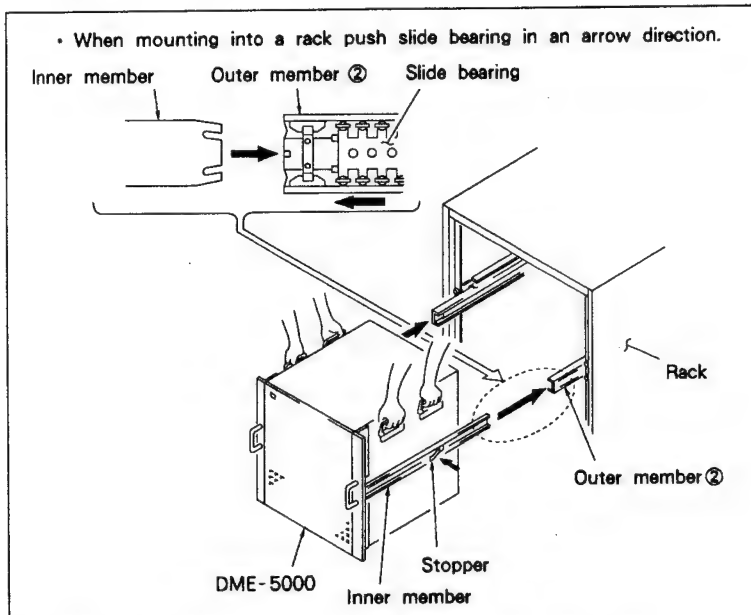
- (3) Use the 8 screws (+ B4x8) procured for mounting to fix the bracket lightly to the outer member ①. At this time, move the outer member ② forward and backward so the screw hole of outer member ① can be seen.



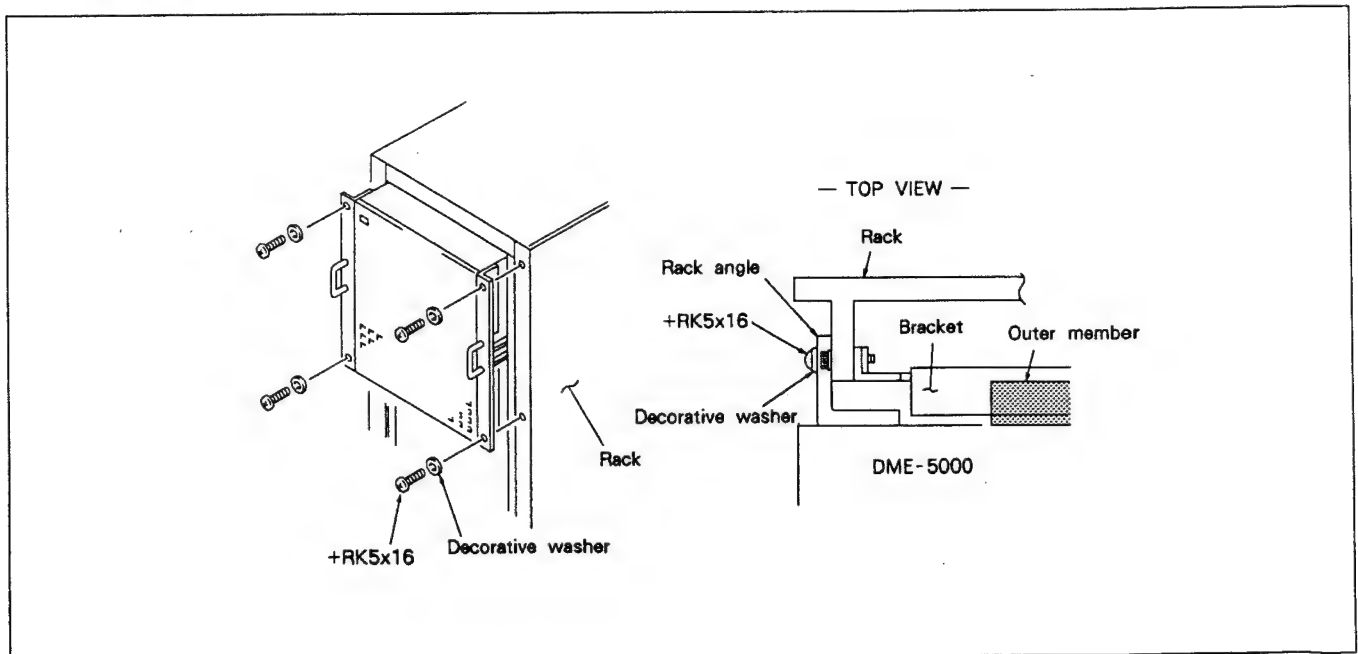
- (4) Use the 4 screws (C4x12) and washers (W4) supplied with the RMM-18DV to fix the outer member assembly lightly to the rack. At this time, adjust the installing position of the outer member. After adjustment, tighten the screws (+ B4x8) that were lightly fixed in step (3).



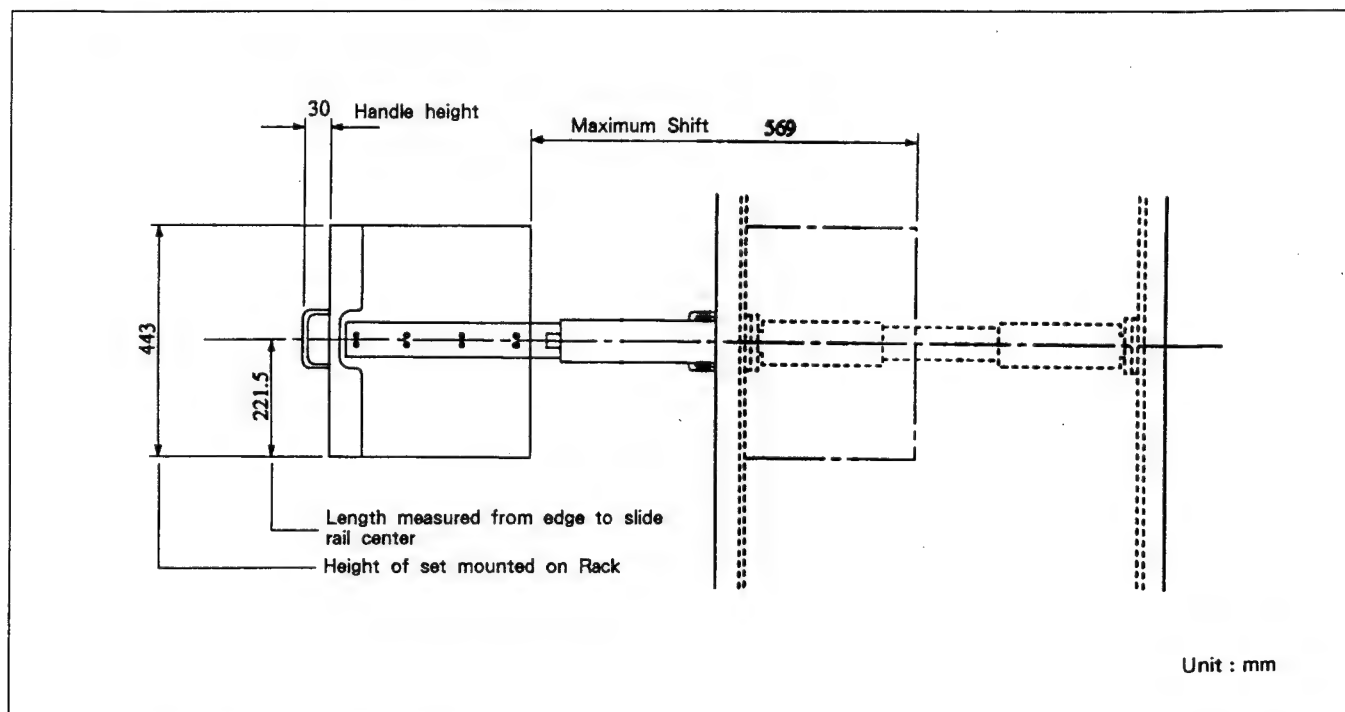
- (5) Before you place the unit in the rack, release the stopper of the inner member. After making sure the unit can be smoothly placed in the rack, tighten the screws (C4x12) that were lightly fixed in step (4).



- (6) After you placed the unit in the rack, use the 4 screws (+RK5x16) and four decoration washers procured for mounting to fix the unit to the rack.



- The maximum distance when the DME-5000 is mounted in the rack is indicated below.



2-9. SUPPLIED ACCESSORIES

- EX-270 Extension Board (1)
- Power Cord Set (1)
- Power Cord Adapter (1)
- 75 Ω Terminator (1)
- Operation and Maintenance Manual (1)

2-10. OPTIONAL ACCESSORIES

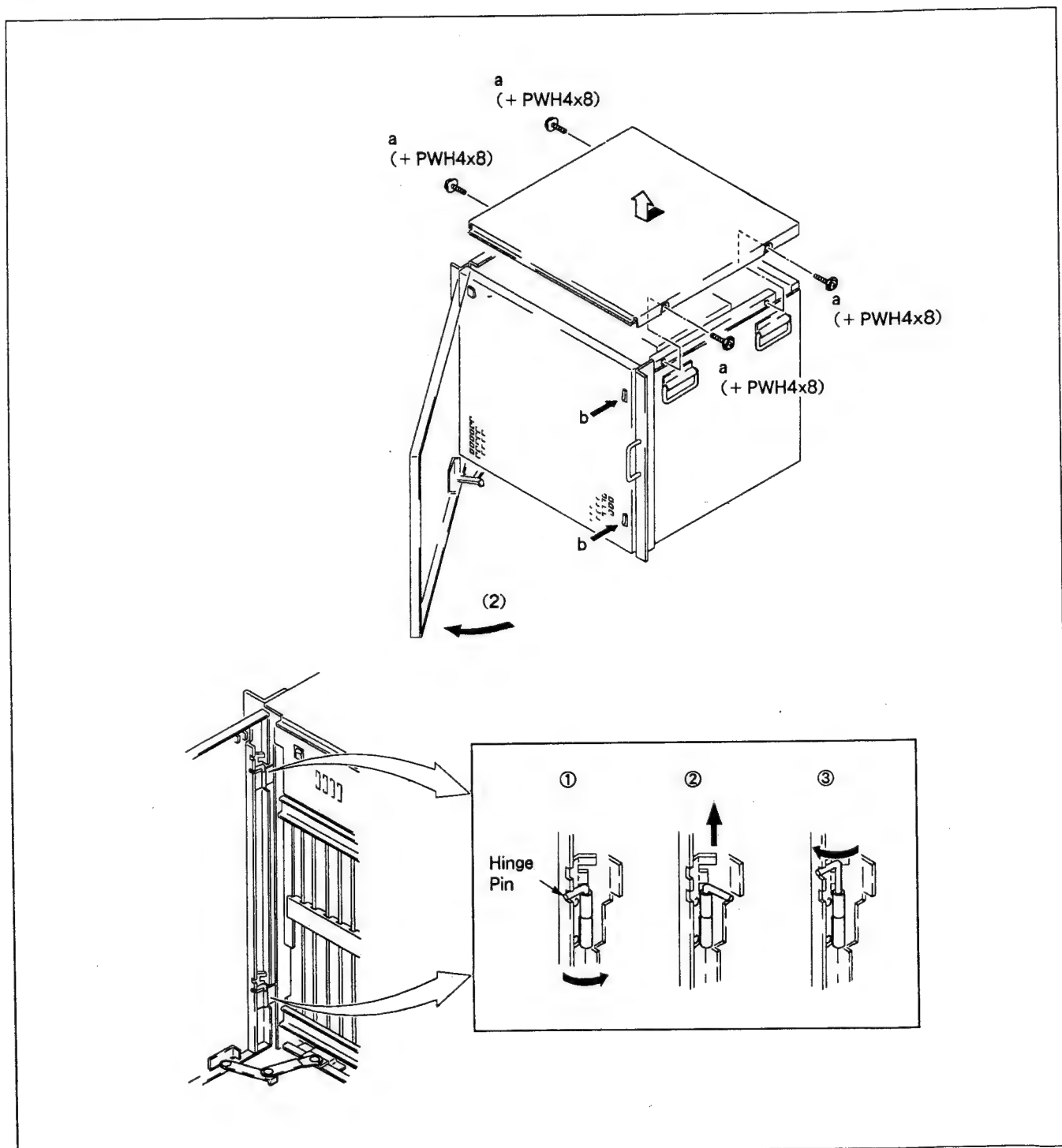
- BKDM-5010 : Composite Input/Output Board
- BKDM-5011 : Component Input/Output Board
- BKDM-5012 : Digital Composite IN/OUT Board
- BKDM-5013 : Digital Component IN/OUT Board
- BKDM-5020 : Digital Combiner Board (D2)
- BKDM-5021 : Digital Combiner Board (D1)
- BKDM-5030 : Non-linear Effects Board
- BKDM-5040 : Lighting Wipe Effects Board
- BKDM-5060 : Graphic Data Display Board

SECTION 3

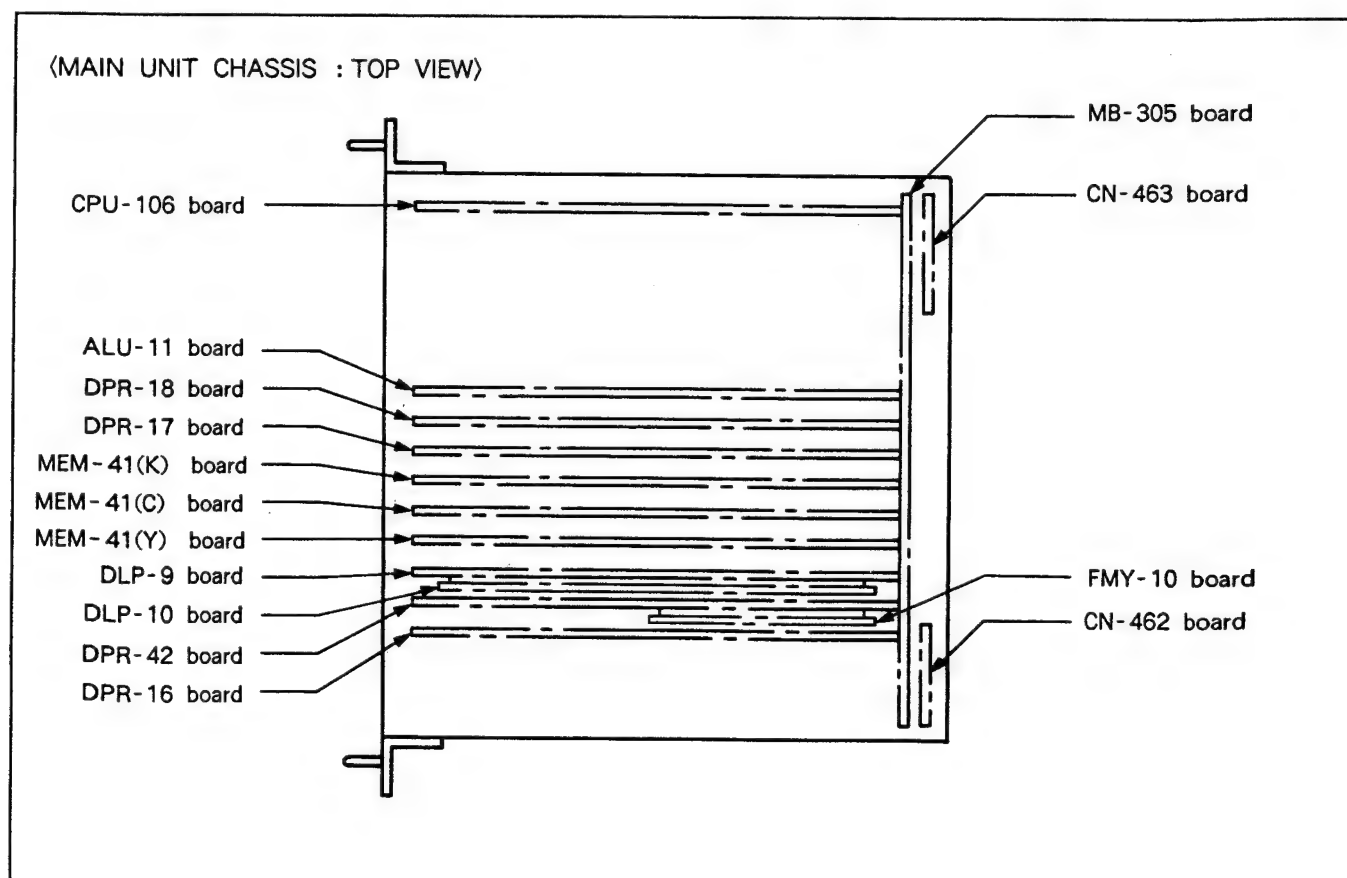
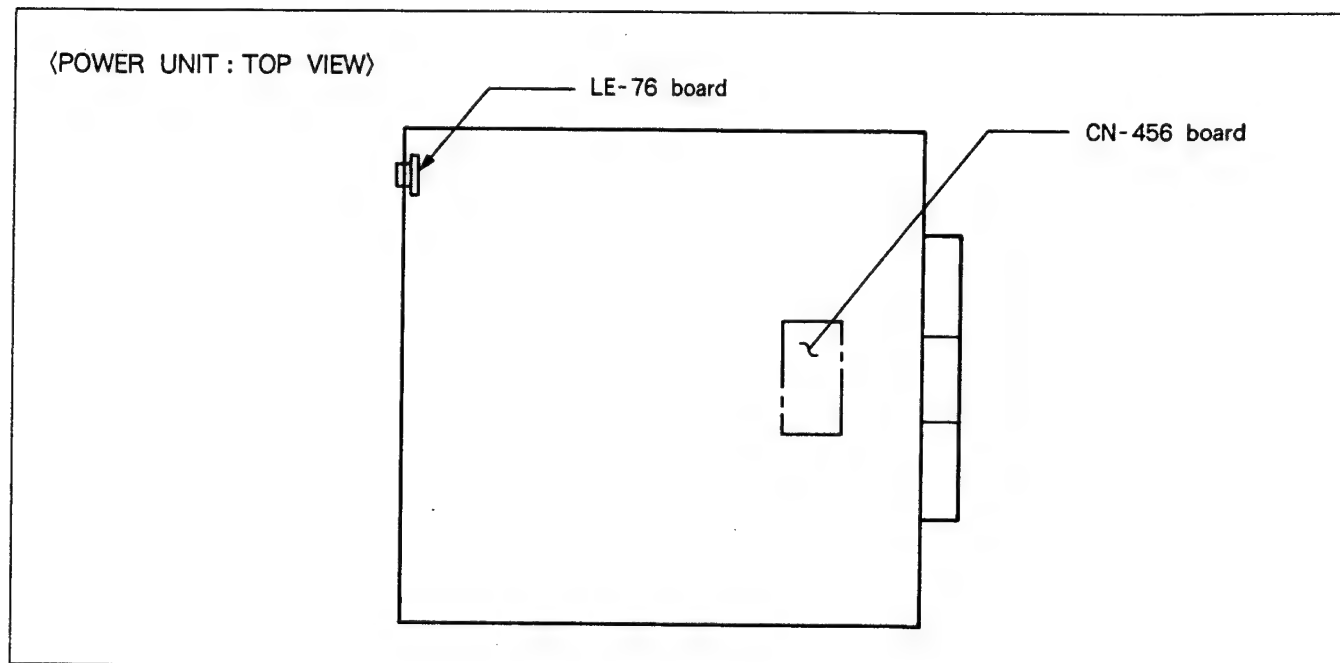
SERVICE INFORMATION

3-1. REMOVAL OF PANELS

- (1) Remove 4 screws of "a" (+PWH4x8), and remove the upper panel by pulling it out in your direction.
- (2) Release the lock of "b" and open the front panel.
- (3) Lift the hinge pin and to the upper groove as shown in inset figures ① to ③ to remove the front panel.



3-2. LOCATION OF PRINTED CIRCUIT BOARDS

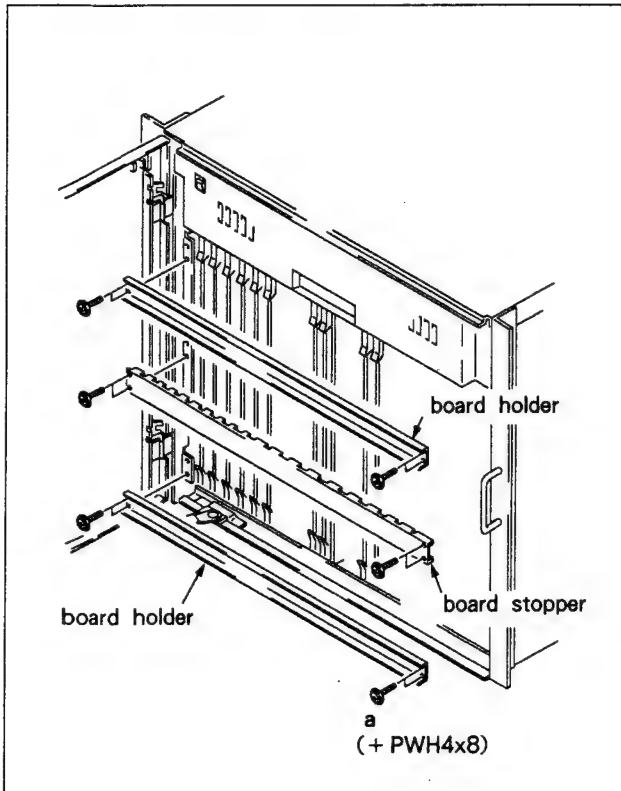


3-3. CIRCUIT INFORMATION

Board	Function
ALU - 11	Real-time Numeric Data Processor
CN - 456	Power Supply Connector Board
CN - 462	BNC Connector Board
CN - 463	D SUB Connector Board
CPU - 106	System Control and Communication
DLP - 9	Horizontal and Vertical Low Pass Filter
DLP - 10	IIR Vertical Low Pass Filter
DPR - 16	Output Recursive Effect Generator and Border Generator
DPR - 17	Memory Address Selector and Write Address Generator
DPR - 18	Read Address Generator and Split Mirror Generator
DPR - 42	Input Pixel Effect
FMY - 10	Input Freeze
LE - 76	Power LED Board
MB - 305	Mother Board
MEM - 41	3 Field Video Memory and Interpolator

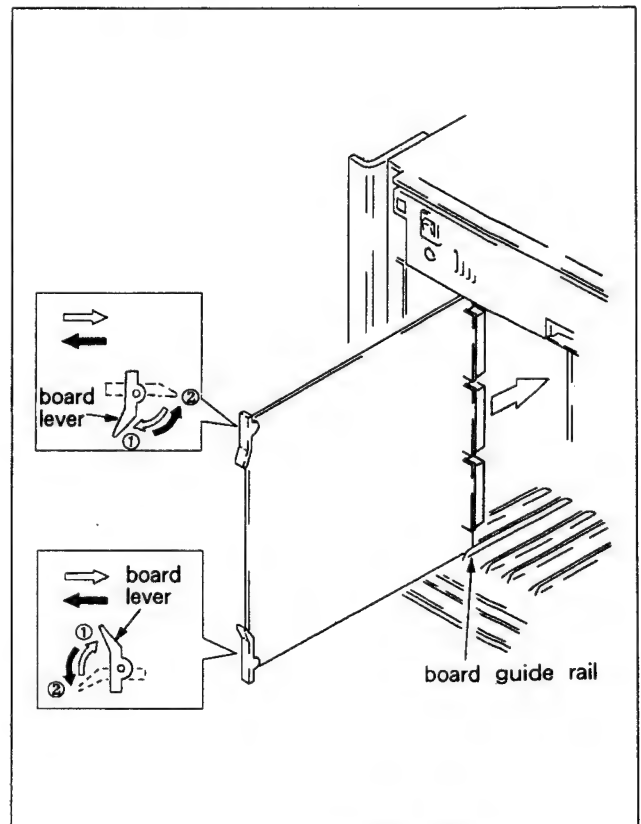
3-4. HOW TO INSTALL AND REMOVE THE BOARDS

- (1) Remove 12 screws of "a" (+ PWH4x8), board stopper, and board holder.



- (2) Insert the board in the slot along the board guide rail. To install the board, press the board lever in the direction of arrow ② while pushing the board inside.

- (3) To remove the board, pull the board lever in the direction of arrow ① and pull out the board in your direction.



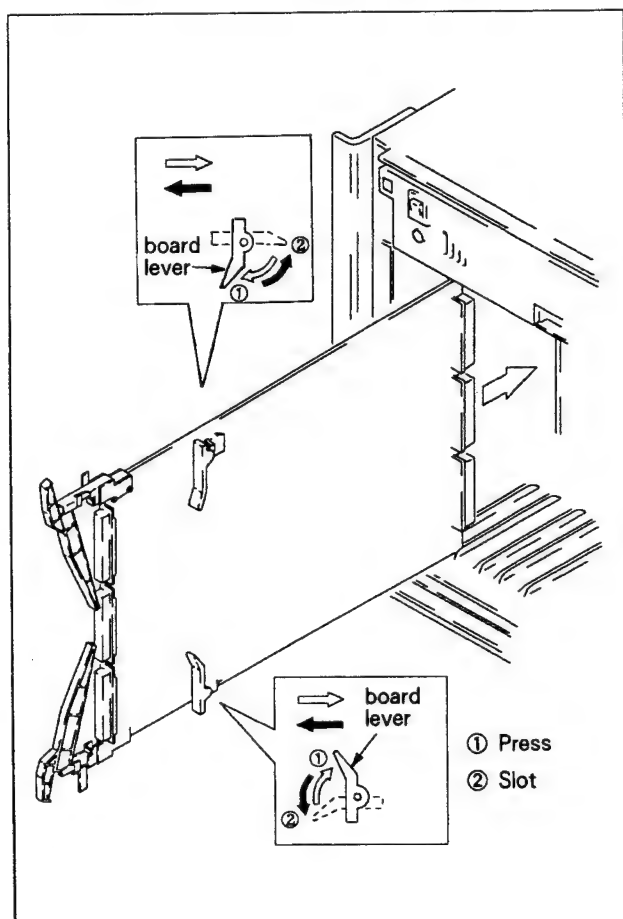
Note) After installing the board, check whether the connector is firmly connected to the MB-305 board.

3-5. HOW TO USE THE EXTENSION BOARD

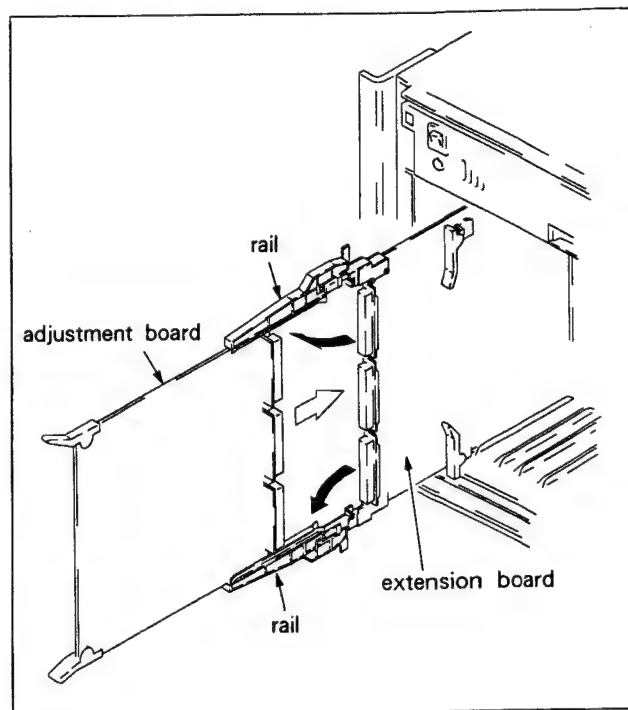
• EX-270 EXTENSION BOARD

(1) Pull out the board to be adjusted in the manner described in section 3-4. How to Install and Remove the Boards.

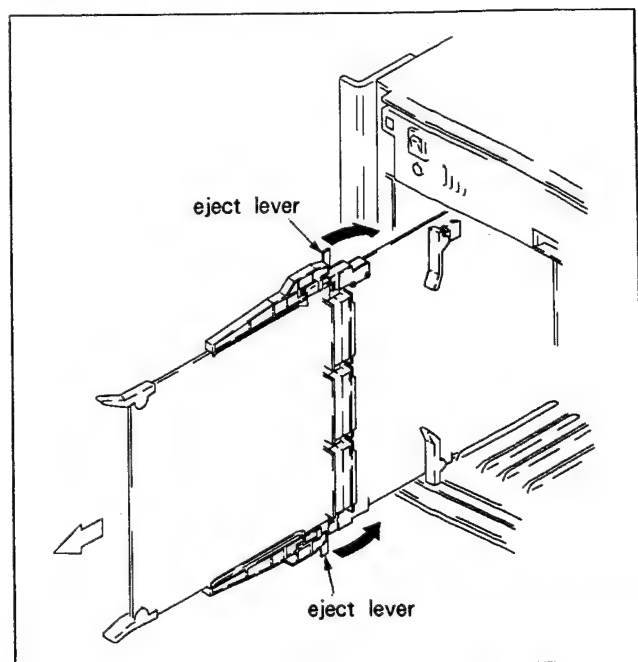
(2) Insert the extension board into the slot and press the board lever to secure the board.



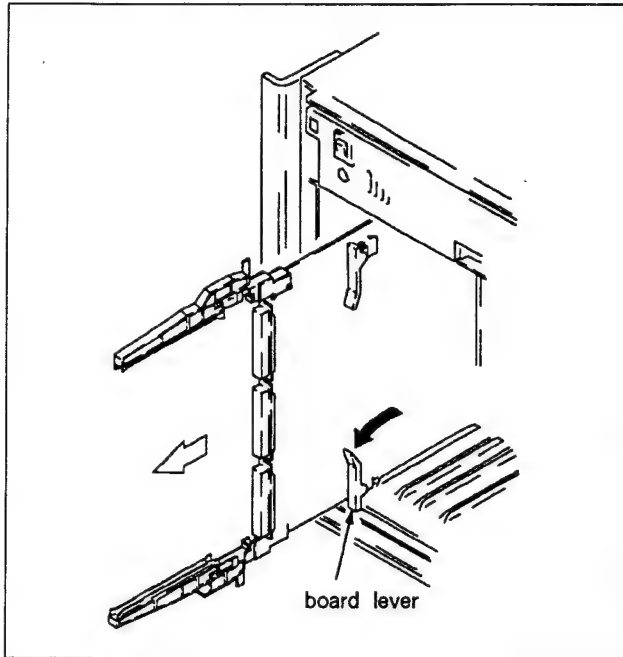
(3) Open the rail of the extension board. (Open the rail completely until it locks.) Insert the board to be adjusted along the rail of the extension board and make the adjustment.



(4) After adjustment, press the eject lever in the direction of arrow and pull out the adjustment board in your direction.



- (5) Push the board lever in the direction of arrow and remove the extension board by pulling it in your direction.



3-6. NOTES ON SPARE PARTS

3-6-1. Notes on Spare Parts

(1) Safety Related Components Warning

Components marked with \triangle on the schematic diagrams, exploded views and electrical spare parts list are critical to safe operation. Replace these components with Sony parts whose part numbers appear in this manual or in service bulletins and service manual supplements published by Sony.

(2) Standardization of Parts

Repair parts supplied from Sony Parts Center may not always be identical with the parts which are actually in use due to "accommodating the improved parts and/or engineering changes" or "standardization of genuine parts".

This manual's exploded views and electrical spare parts list are indicating the part numbers of "the standardized genuine parts at the present".

(3) Stock of Parts

Parts marked with "o" in SP (Supply Code) column of the spare parts list are normally not required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.

(4) Units for Capacitors, Inductors and Resistors

The following units may be assumed in schematic diagrams, electrical parts list and exploded views unless specified otherwise.

Capacitors : μF

Inductors : μH

Resistors : Ω

3-6-2. Replacement Procedure of Chip Parts

Required Tools

Soldering iron : 20 W If possible, use a soldering iron tip heat-controller at 270 ± 10 °C.

Braided wire : SOLDER TAUL or equivalent
Sony part No. 7-641-300-81

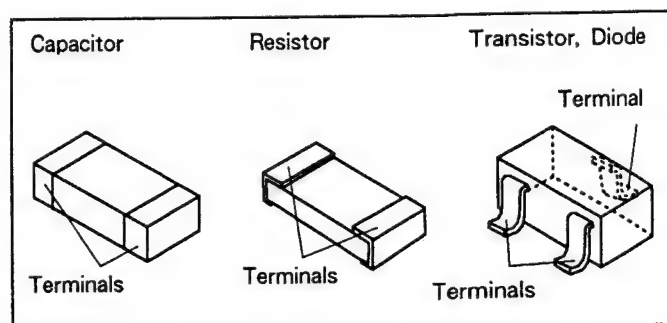
Solder : 0.6mm dia. is recommended.

Tweezers

Soldering Conditions

Soldering iron temperature : 270 ± 10 °C

Soldering time : Within 2 seconds per a pin



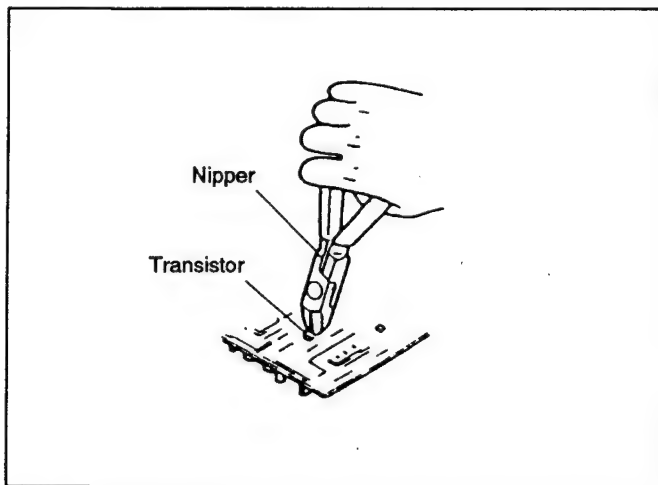
• Resistor and Capacitor Replacement

- (1) Place the soldering iron tip onto the chip part and heat it up until the solder is melted. When the solder is melted, slide the chip part aside.
- (2) Make sure that there is no pattern peeling, damage and/or bridges around the desoldering positions.
- (3) After removing the chip part, presolder the area, in which the new chip part is to be placed, with a thin layer of solder.
- (4) Place new chip part in the desired position and solder both ends.

Note : Once a chip part has been removed, never use it again.

• Transistor and Diode Replacement

- (1) Cut the terminals of the chip part with a nipper.
- (2) Remove the cut leads.
- (3) Make sure that there is no pattern peeling, damage and/or bridges around the desoldering positions.
- (4) After removing the chip part, presolder the area, in which the new chip part is to be placed, with a thin layer of solder.
- (5) Place new chip part in the desired position and solder the terminals.



• IC Replacement

- (1) Using the braided wire, "SOLDER TAUL" Sony Part No. 7-641-300-81, remove the solder around the pins of the IC-chip to be removed.
- (2) While heating up the pins, remove the pins one by one using sharp-pointed tweezers.
- (3) Make sure that there is no pattern peeling, damage and/or bridges around the desoldering positions.
- (4) After removing the chip part, presolder the area, in which the new chip part is to be placed, with a thin layer of solder.
- (5) Place new chip part in the desired position and solder the pins.

3-6-3. Replacement Procedure of Backup Battery

The following board is provided with a RAM backup battery.

When replacing and after replacing, perform the procedure described below :

When replacing the RAM backup battery, be sure to use the battery listed in the parts list.

CPU-106 board

The battery on the CPU-106 board is necessary to replace periodically using the operating time of the unit as a rough guide. The standard replacement interval is 4 or 5 years.

Replace the battery using the following procedures :

- ① Store the necessary data in FDD, etc. in advance.
- ② Turn the power off and then remove the board.
- ③ When replacing the battery, take care not to touch any conductive parts other than the battery.

Note :

The unit will start up in Factory Set mode when the power is turned on after completion of the procedure above even if the mode is set to RESUME on the POWER ON MODE menu of the set before the battery is replaced.

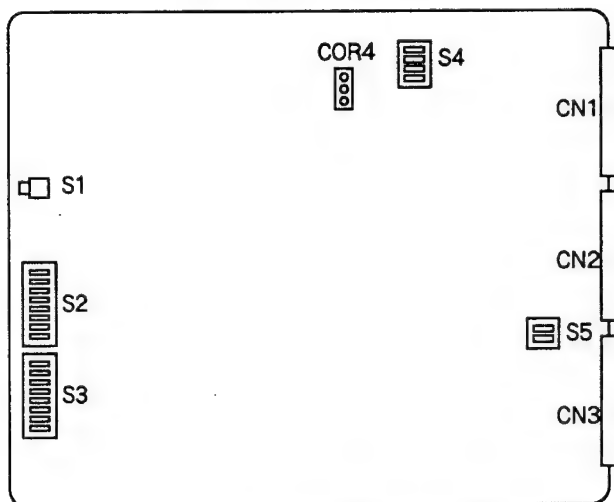
(Refer to the DME-5000 User's Guide "Chapter 7. Setup" for the setting of each mode.)

3-7. SETTING SELECT SWITCHES/ SETTING AT SHIPMENT

- There are some select switches on the boards in the unit.

The function of these switches are indicated below.
Set the switches in accordance with your system.

3-7-1. CPU-106 Board



CPU-106 Board (A side)

(1) S1 : CPU Reset Switch

(2) S2 : DME UNIT NO. Select Switch

Set the channels of the DME-5000. When using multiple units, set the DME channels so they aren't duplicated. (DME can be set from 1-16)

UNIT ID NO.	bit 5	bit 6	bit 7	bit 8
1	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
16	ON	ON	ON	ON

S2 Bit 1 to 4 : Not Used

(3) S3 : Mode Select Switch

	ON	OFF	Setting at shipment
1	625 (PAL)	525 (NTSC)	OFF
2	D2	D1	ON
3	—	—	OFF
4	—	—	OFF
5	RAM CLEAR *1	—	OFF
6	—	—	OFF
7	EEPROM DEFAULT value setting *2	—	OFF
8	ASSIST ON *3	ASSIST OFF	OFF

*1 : The data on RAM is completely cleared.

*2 : Set bit 7 to ON and reset only when copying (initialization) the setup data from PROMs (IC G19, J19, L19, N19) to EEPROM. Be careful that the KEY FRAME data on RAM is also completely cleared.

*3 : For engineer use only. Do not set to ON.

(4) S4 : Board Address Switch

Not used at this time.

Setting at shipment : All OFF

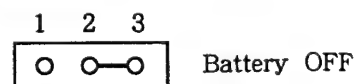
(5) S5 : Controll Panel Terminal Switch

This switch is not used in normal circumstances. It is only necessary to use this switch if problems arise with transmissions. By setting No.1 to ON, a terminating resistor is applied to the circuits handling communication with the control panel.

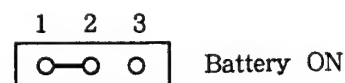
Setting at shipment : All OFF

(6) COR4 : Battery Back-up

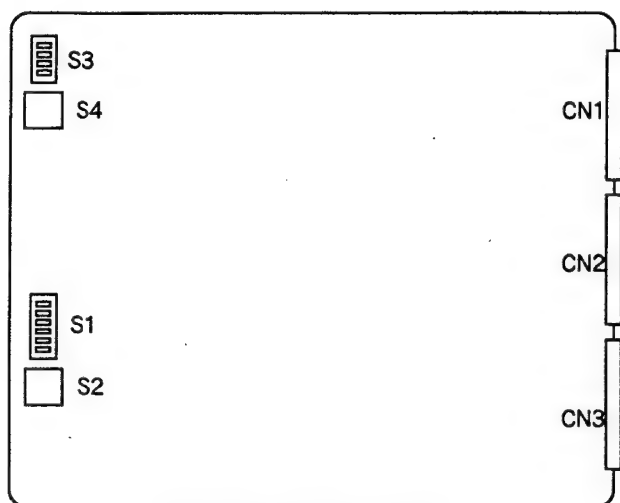
Setting at shipment :



When installing :



3-7-2. DLP-9 Board



DLP-9 board (A side)

(1) S1 : Select H Switch

	ON	OFF	Setting at shipment
1	Y BYPASS	NORMAL	OFF
2	C BYPASS	NORMAL	OFF
3	K BYPASS	NORMAL	OFF
4	MANUAL SET	AUTO	OFF
5	16 to 31	0 to 15	OFF
6	DEFOCUS	NORMAL	OFF

(2) S2 : Parameter H Switch

(MANUAL SET ONLY)

It can be switched only when S1 bit 4 is on.

Setting at shipment : 0 (ROTARY SWITCH)

(3) S3 : Select V Switch

	ON	OFF	Setting at shipment
1	DEFOCUS OFF	NORMAL	OFF
2	MANUAL SET	AUTO	OFF
3	16 to 31	0 to 15	OFF
4	—	—	OFF

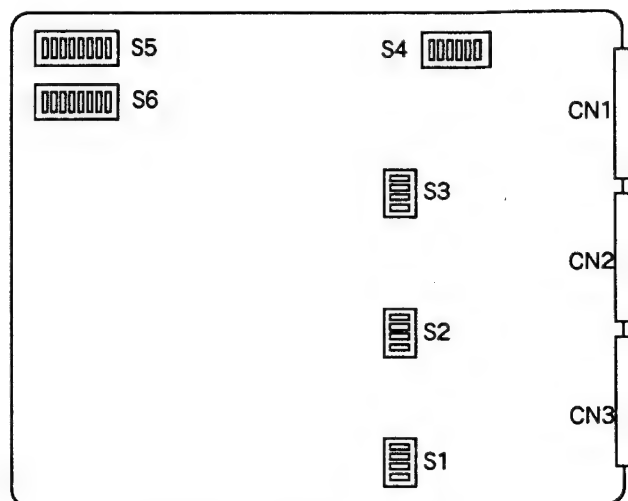
(4) S4 : Parameter V Switch

(MANUAL SET ONLY)

It can be switched only when S3 bit 2 is on.

Setting at shipment : 0 (ROTARY SWITCH)

3-7-3. DLP-10 Board



DLP-10 board (A side)

(1) S1 : Y Lower Bit Adding Control Switch

	ON	OFF	Setting at shipment
1	bit2 + 0	bit2 + 1	OFF
2	bit3 + 0	bit3 + 1	OFF
3	bit4 + 0	bit4 + 1	OFF
4	bit5 + 0	bit5 + 1	OFF

(2) S2 : C Lower Bit Adding Control Switch

	ON	OFF	Setting at shipment
1	bit2 + 0	bit2 + 1	OFF
2	bit3 + 0	bit3 + 1	OFF
3	bit4 + 0	bit4 + 1	OFF
4	bit5 + 0	bit5 + 1	OFF

(3) S3 : K Lower Bit Adding Control Switch

	ON	OFF	Setting at shipment
1	bit2 + 0	bit2 + 1	OFF
2	bit3 + 0	bit3 + 1	OFF
3	bit4 + 0	bit4 + 1	OFF
4	bit5 + 0	bit5 + 1	OFF

(4) S4 : Defocus Parameter Switch

	ON	OFF	Setting at shipment
1	DEFOCUS CONTROL 1	NORMAL	OFF
2	DEFOCUS CONTROL 2	NORMAL	OFF
3	DEFOCUS CONTROL 4	NORMAL	OFF
4	DEFOCUS CONTROL 8	NORMAL	OFF
5	16 to 31	0 to 15	OFF
6	MANUAL	AUTO	OFF

(5) S5 : 1H Delay Line Control Switch

Set the amount of delay with bits 1-8.

Setting at shipment :

<For SY Model(D2)> <For EK Model(D1/625)>

S5-1 : ON	ON
S5-2 : OFF	ON
S5-3 : OFF	OFF
S5-4 : ON	ON
S5-5 : OFF	ON
S5-6 : OFF	OFF
S5-7 : OFF	ON
S5-8 : ON	OFF

※When using in D1/525 make the following settings.

S5-1 : ON
S5-2 : OFF
S5-3 : ON
S5-4 : OFF
S5-5 : ON
S5-6 : OFF
S5-7 : ON
S5-8 : OFF

(6) S6 : 1H Delay Line Control Switch

Set the amount of delay with bits 1-8.

Setting at shipment :

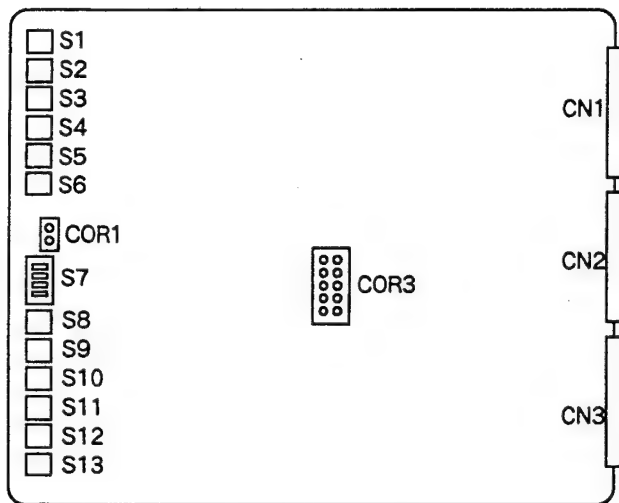
<For SY Model(D2)> <For EK Model(D1/625)>

S5-1 : OFF	OFF
S5-2 : ON	OFF
S5-3 : OFF	ON
S5-4 : ON	ON
S5-5 : OFF	ON
S5-6 : OFF	OFF
S5-7 : OFF	ON
S5-8 : ON	OFF

※When using in D1/525 make the following settings.

S5-1 : OFF
S5-2 : ON
S5-3 : ON
S5-4 : OFF
S5-5 : ON
S5-6 : OFF
S5-7 : ON
S5-8 : OFF

3-7-4. DPR-16 Board



DPR-16 board (A side)

- (1) S1~S3 : BORDER V Phase Setting Switch
S4~S6 : BORDER H Phase Setting Switch

	D2	D1/625	D1/525	Setting at shipment	
				SY (D2)	EK (D1/625)
S1	F	F	F	F	F
S2	F	E	F	F	E
S3	4	E	5	4	E
S4	F	F	F	F	F
S5	B	B	C	B	B
S6	A	E	0	A	E

- (2) S7 : PASS Switch for Self-diagnosis

This is the self-diagnosis switch. When not performing a self-diagnosis make sure it is off.

	ON	OFF	Setting at shipment
1	Y BYPASS	NORMAL	OFF
2	C BYPASS	NORMAL	OFF
3	K BYPASS	NORMAL	OFF
4	—	—	OFF

- (3) S8~S10 :

DROP SHADOW V LIMIT Phase Setting Switch

- S11~S13 :

DROP SHADOW H LIMIT Phase Setting Switch

	D2	D1/625	D1/525	Setting at shipment	
				SY (D2)	EK (D1/625)
S8	E	E	E	E	E
S9	F	D	F	F	D
S10	F	2	F	F	2
S11	C	8	8	C	8
S12	7	A	C	7	A
S13	6	D	6	6	D

- (4) COR1 : STARDUST TIMING ADJUSTMENT

OPEN ; D1/625

SHORT ; D2, D1/525

Setting at shipment : < For SY Model (D2) >

SHORT

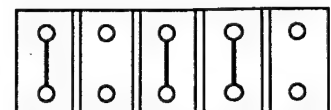
< For EK Model (D1/625) >

OPEN

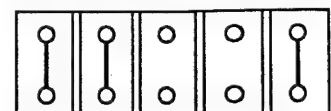
※ When using in D1/525, please short.

- (5) COR3 : RECURSIVE Input amplitudes of V BLK Setting.

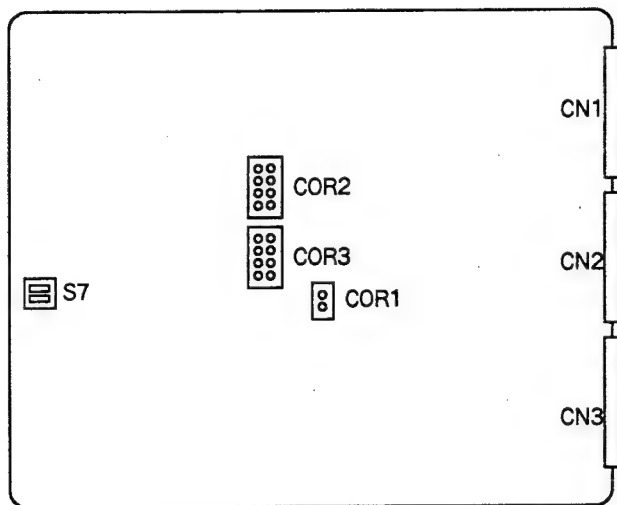
Setting at shipment : < SY >



< EK >



3-7-5. DPR-17 Board



DPR-17 board (A side)

(1) S7 : Mode Select Switch

The operation modes of this unit can be switched by turning each bit on and off. Match the operation mode set by S3 of the CPU-106 board.

	ON	OFF	Setting at shipment
1	D2	D1	ON
2	525	625	ON

(2) COR1 : Manual Select

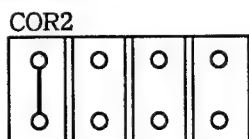
OPEN ; Normal

SHORT ; Manual Set Mode

Setting at shipment : OPEN

(3) COR2 : Write Memory Enable Timing Adjustment

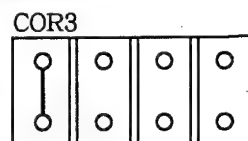
Setting at shipment :



↑ connector side

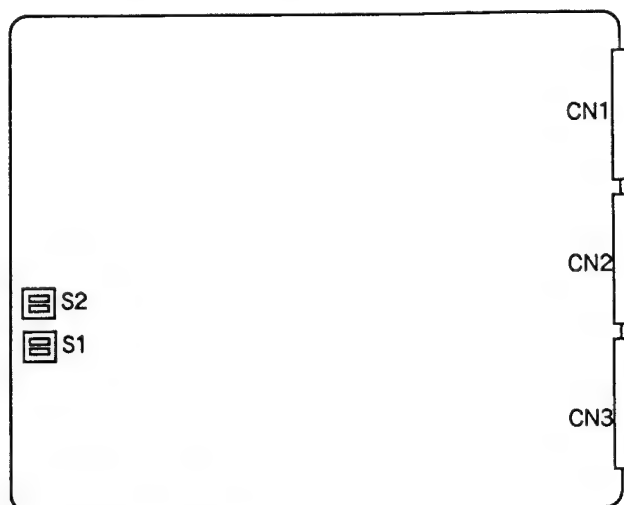
(4) COR3 : Write Memory Pulse Timing Adjustment

Setting at shipment :



↑ connector side

3-7-6. DPR-18 Board



DPR-18 board (A side)

(1) S1 : PASS Switch for Self-diagnosis

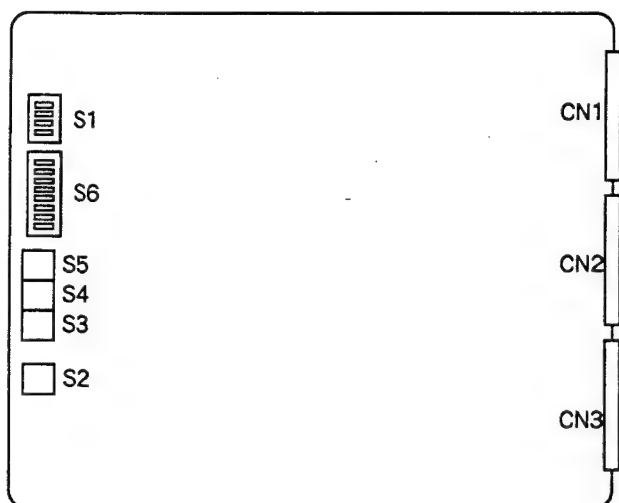
This is the self-diagnosis switch. When not performing a self-diagnosis make sure it is off.

	ON	OFF	Setting at shipment
1	BYPASS	NORMAL	OFF
2	—	—	OFF

(2) S2 : Mode Select Switch

	ON	OFF
1	D1	D2
2	625	525

3-7-7. DPR-42 Board



DPR-42 Board (A side)

(1) S1 : PASS Switch for Self-diagnosis

This is the self-diagnosis switch. When not performing a self-diagnosis make sure it is off.

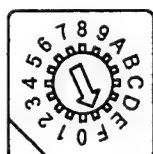
	ON	OFF	Setting at shipment
1	Y BYPASS	NORMAL	OFF
2	C BYPASS	NORMAL	OFF
3	KEY BYPASS	NORMAL	OFF
4	DYNAMIC ROUND OFF	DYNAMIC ROUND ON	OFF

(2) S2, S3, S4 : MOSAIC H START Phase Setting Switches

These three switches are used to set the phase of the H start address for mosaic effect generation.

Setting at shipment :

	D2	D1/525	D1/625
S2	E	E	E
S3	A	A	A
S4	E	D	D



Rotary switch

(3) S5 : MOSAIC V START Phase Setting Switch

Set the amount of delay (0H to 15H) of the V start address for mosaic effect generation.

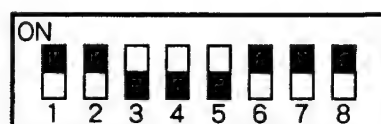
Setting at shipment : <For D2, D1/525 and D1/625>

F (Rotary switch)

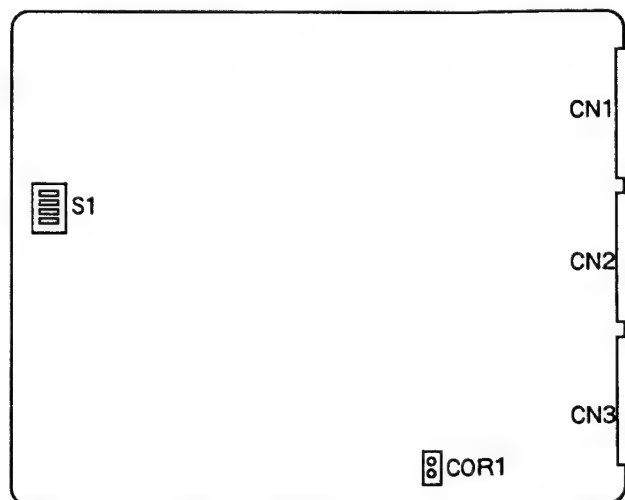
(4) S6 : Move Signal DELAY Setting Switch

Set the amount of delay with bits 1 to 8.

Setting at shipment :



3-7-8. MEM-41 (Y), (C), (K) Board (SLOT No. 10, 11, 12)



MEM-41 board (A side)

(1) S1 : Switch for Self-diagnosis

This is the self-diagnosis switch. When not performing a self-diagnosis make sure it is off.

	ON	OFF	Setting at shipment
1	BYPASS	NORMAL	OFF
2	DEFECTIVE CHECK ON	DEFECTIVE CHECK OFF	OFF
3	FIELD BLOCK	FRAME BLOCK	OFF
4	SEL2 BLOCK	SEL1 BLOCK	OFF

(2) COR1 : Video Mode Select

OPEN ; C MODE (SLOT No. 11)

SHORT ; Y, K MODE (SLOT No. 10, 12)

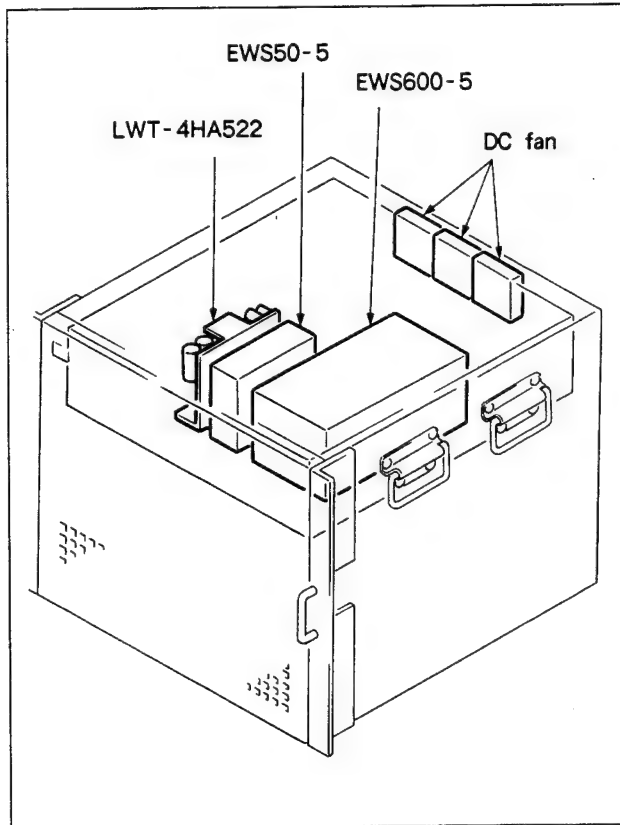
Setting at shipment : According to the slot
number.

Note : Y, C, K (slot numbers 10-12) are mounted on
the same MEM-41 board, and only the COR
1 settings are different. Set to match the
mounted slot numbers.

SECTION 4

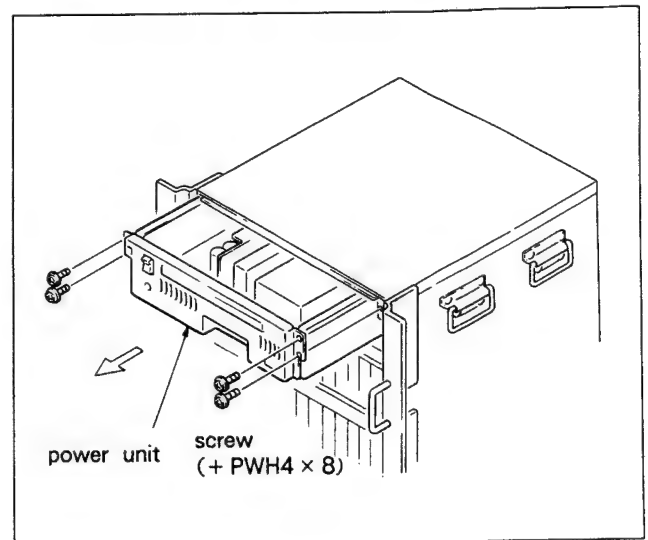
REPLACEMENT OF MAIN PARTS

4-1. LOCATION OF THE MAIN PARTS

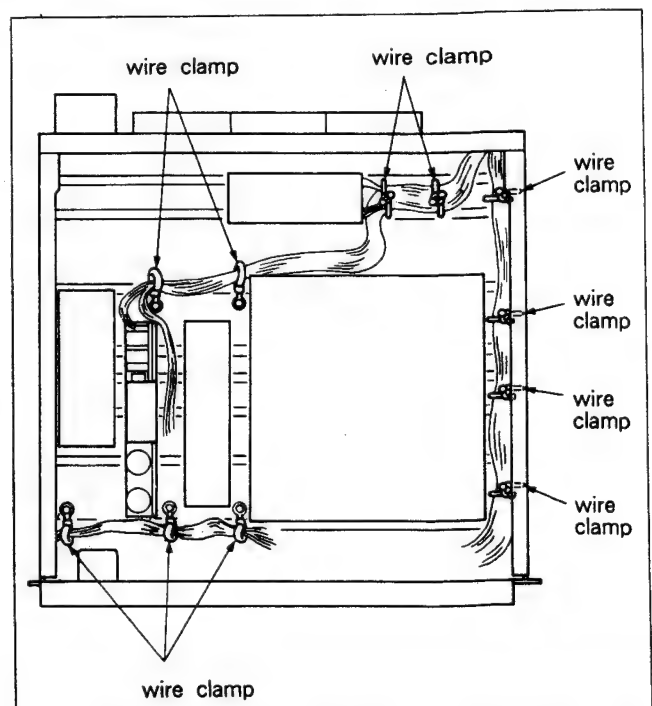


4-2. REPLACEMENT OF THE SWITCHING REGULATORS

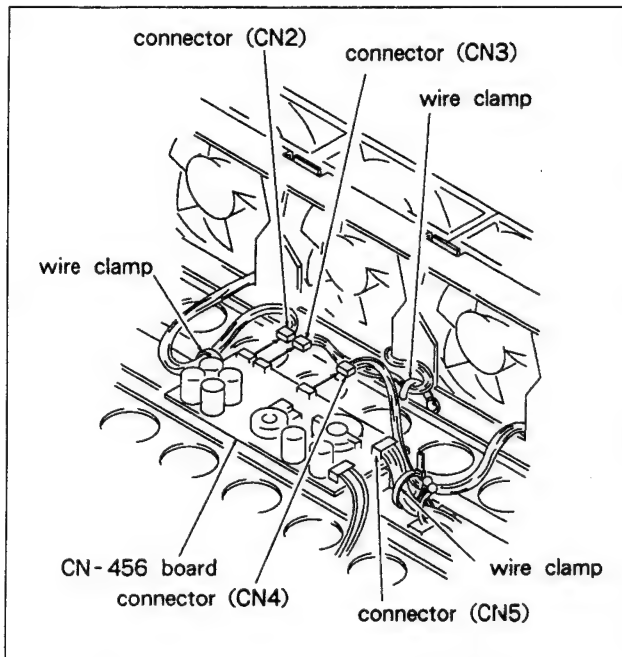
- (1) Remove the front panel in the manner described in section 3-1.
- (2) Remove 4 screws (+PWH4x8) and pull out the power unit in your direction.



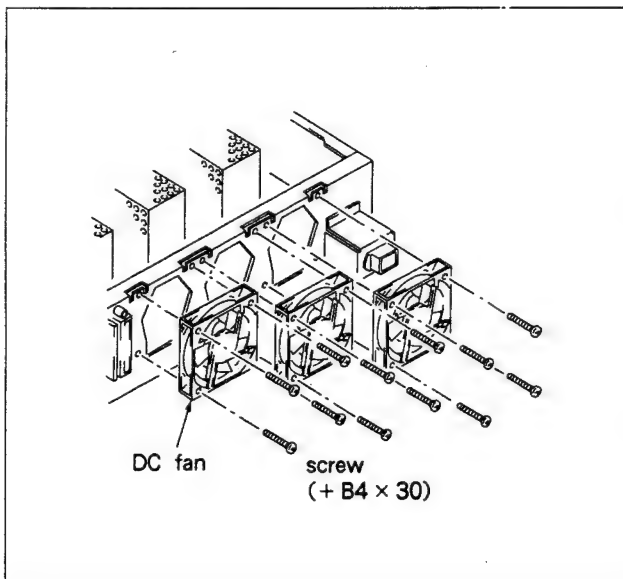
- (3) Remove the harness from 11 wire clamps.



- (5) Disconnect the connectors (CN2, CN3, and CN4) on the CN-456 board.



- (6) Remove 4 screws (+ B4x30) and remove the DC fan.



- (7) Perform steps (1) to (6) in reverse to install the new DC fan.

SECTION 5

TECHNICAL INFORMATION

5-1. DEFECTIVE PARTS DIAGNOSTICS

- (1) Trouble in POSTER/SOLAR, EXTKEY, MOSAIC, LIGHTING, and motion detect

If you turn ON 1, 2, and 3 of S1 on the DPR-42 board when there is any trouble in POSTER/SOLAR, EXTKEY, MOSAIC, LIGHTING, or motion detect, the Y, C, and K boards will assume a through mode. If the trouble can be corrected under this condition, the DPR-42 board is defective.

- (2) Trouble in RECURSIVE effect, DROPSHADOW, MULTI FREEZE, and MONTAGE.

If you turn ON 1, 2, and 3 of S7 on the DPR-16 board when there is any trouble in RECURSIVE effect, DROPSHADOW, MULTI FREEZE, and MONTAGE effect, the Y, C, and K boards will assume a through mode. If the trouble can be corrected under this condition, the DPR-16 board is defective.

- (3) Trouble in MIRROR, SPLIT, and MULTI MOVE effect.

If you turn ON 1 of S8 on the DPR-18 board when there is any trouble in the shifting, enlargement/reduction, rotation, and non-linear shape effect of the image, the address at the read side will be passed. If the MIRROR, SPLIT, and MULTI MOVE effect trouble can be corrected under this condition, the DPR-18 board is defective.

- (4) Trouble in Y, C, or K board during shifting, enlargement/reduction, and rotation.

If you turn ON 1 of S4 on the MEM-41 board when there is any trouble in the Y, C, or K board during shifting, enlargement/reduction, or rotation, the memory will be passed. If the trouble can be corrected under this condition, one of the boards MEM-41 (Y), MEM-41 (C), or MEM-41 (K) is defective.

- (5) Trouble during reduction (when using the LOW PASS filter)

If you turn ON 1, 2, and 3 of S1 on the DLP-9 board when there is an image trouble during a particular reduction which uses the LOW PASS filter to cope with the reduction rate during reduction, the Y, C, and K boards will assume the through mode. If the trouble can be corrected under this condition, the DLP-9 board is defective.

- (6) Vertical/horizontal address error

When a vertical/horizontal address error occurs in each of the Y, C and K boards, and the three errors can not be corrected even after turning ON 1 of S8 on the DPR-18 board, the DPR-17 board is possibly defective.

- (7) Trouble in shifting, enlargement/reduction, and rotation

When there is a trouble during shifting, enlargement/reduction, or rotation, if the trouble is corrected by turning ON S8 on DPR-18 board, the ALU-11 board is possibly defective.

- (8) Power supply trouble

- Trouble in the fan and POWER lamp indicates a defective +5V system of LWT-4HA522 (switching power of the multi-output).
- If the LEDs (D19) on the CPU-106 board do not light at, the EWS600-5 power (+5V) supply is possibly defective.
- Pull out the power supply unit and make sure that the power LED on the EWS600-5 power supply is illuminating.
- If there is no analog output (sync/burst) when the analog video output power is tested using an oscilloscope, the $\pm 12V$ supply is defective.
- When only in the digital serial is unfunctional, the -5V system of the EWS50-5 power supply is possibly defective.
- Pull out the power supply unit and make sure that the power LED on the EWS50-5 power supply is illuminating.

(9) Trouble in the INPUT FREEZE

If the INPUT FREEZE system operation is unsatisfactory, then the FMY-10 board, mounted on the DPR-42 board, is possibly defective.

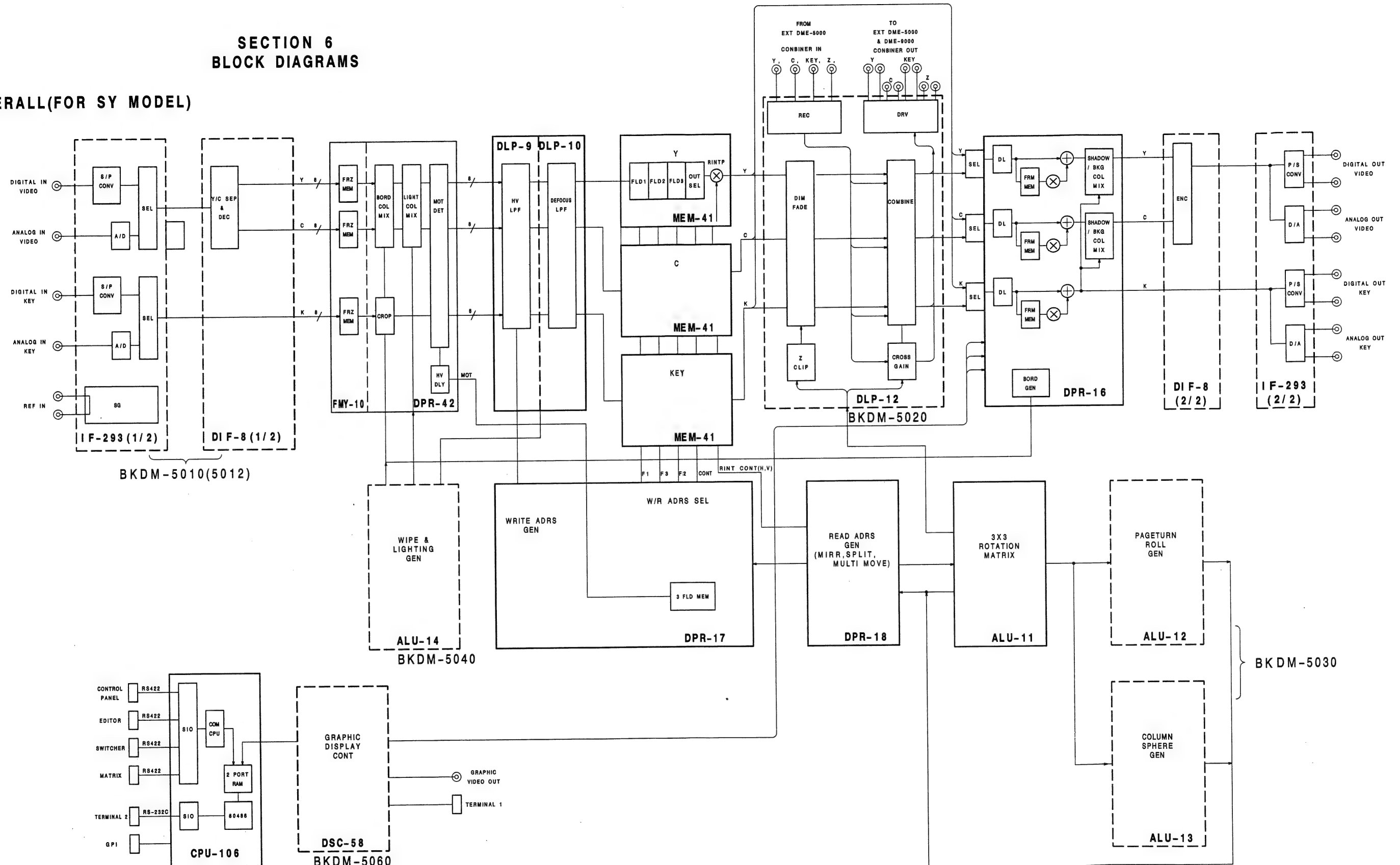
5-2. SELF-DIAGNOSTICS

The CPU-106 board self-diagnostics can be performed using the SET UP menu of the control panel. See the Operation Manual of the control panel for details.

OVERALL OVERALL

SECTION 6 BLOCK DIAGRAMS

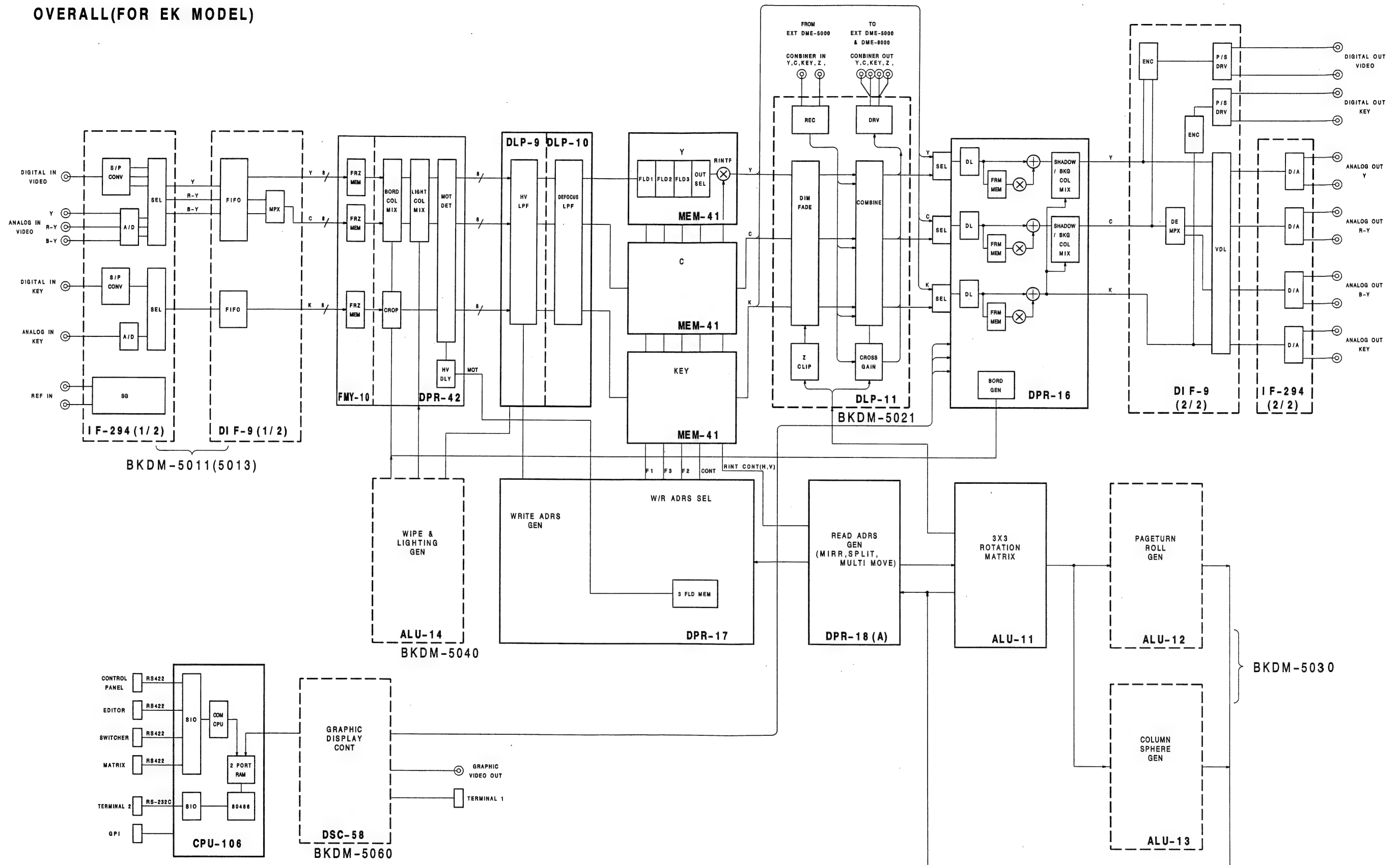
OVERALL(FOR SY MODEL)



OVERALL BLOCK DME-5000(FOR SY MODEL)

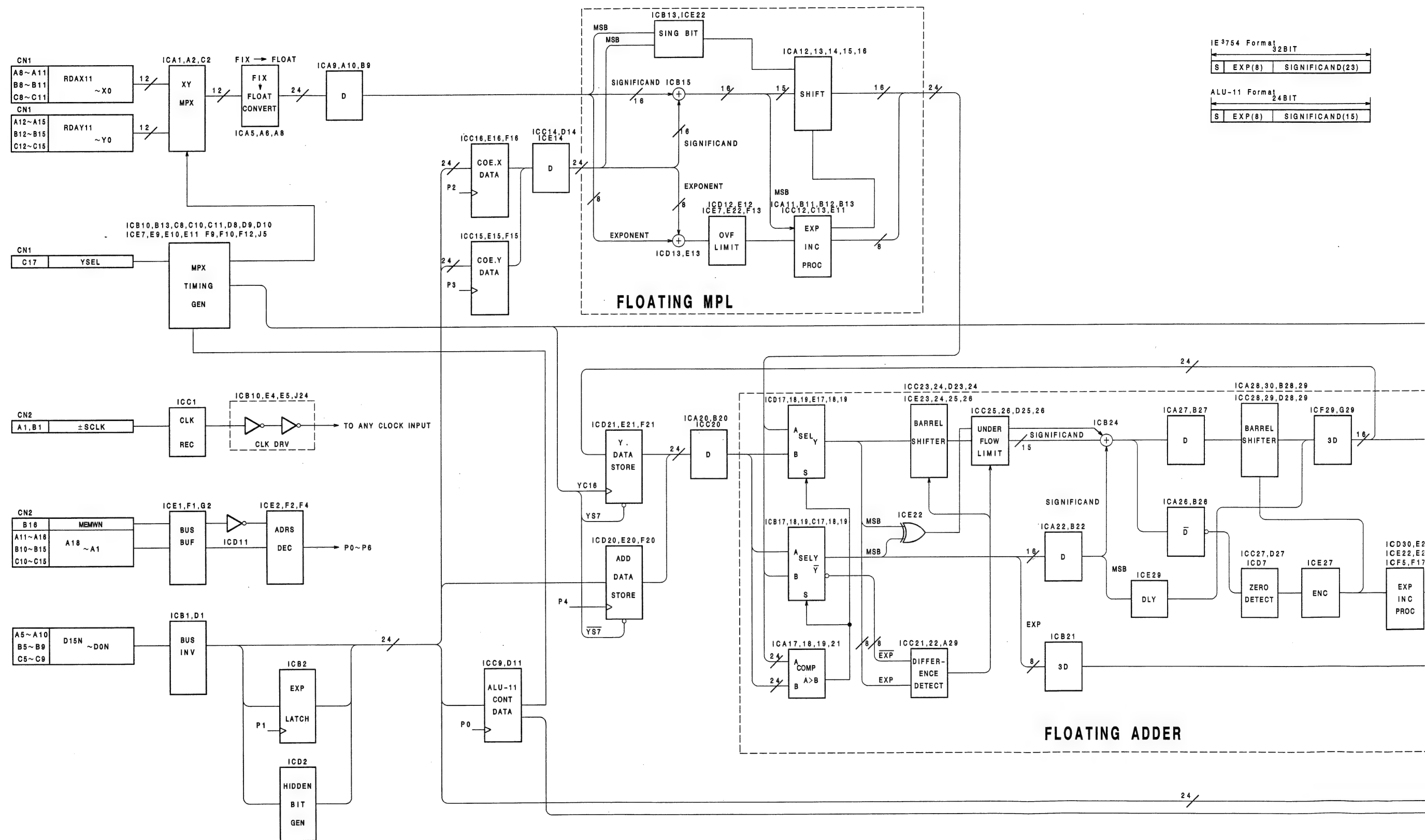
OVERALL OVERALL

OVERALL(FOR EK MODEL)

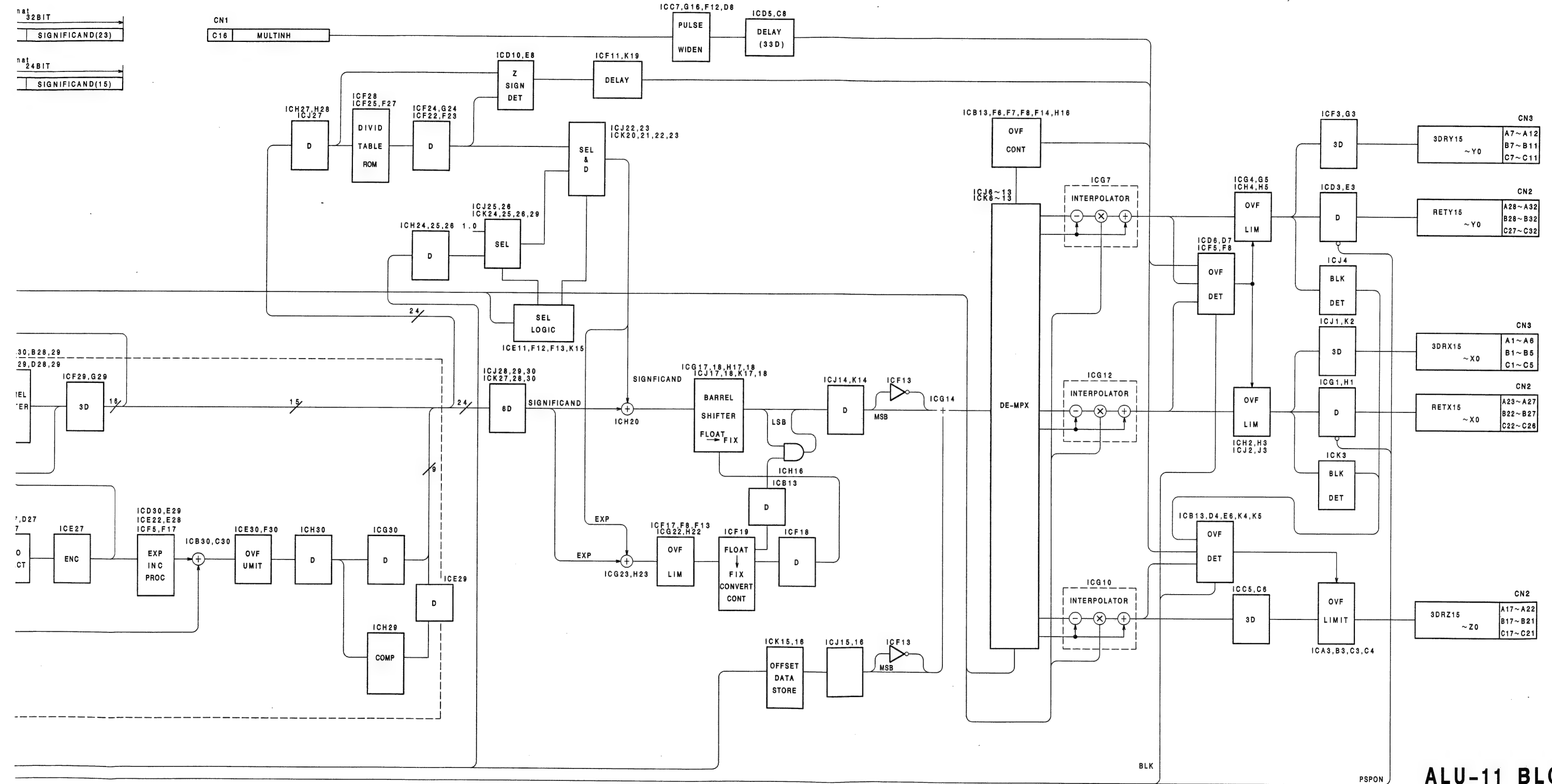


OVERALL BLOCK DME-5000(FOR EK MODEL)

REAL TIME NUMERIC DATA PROCESSOR

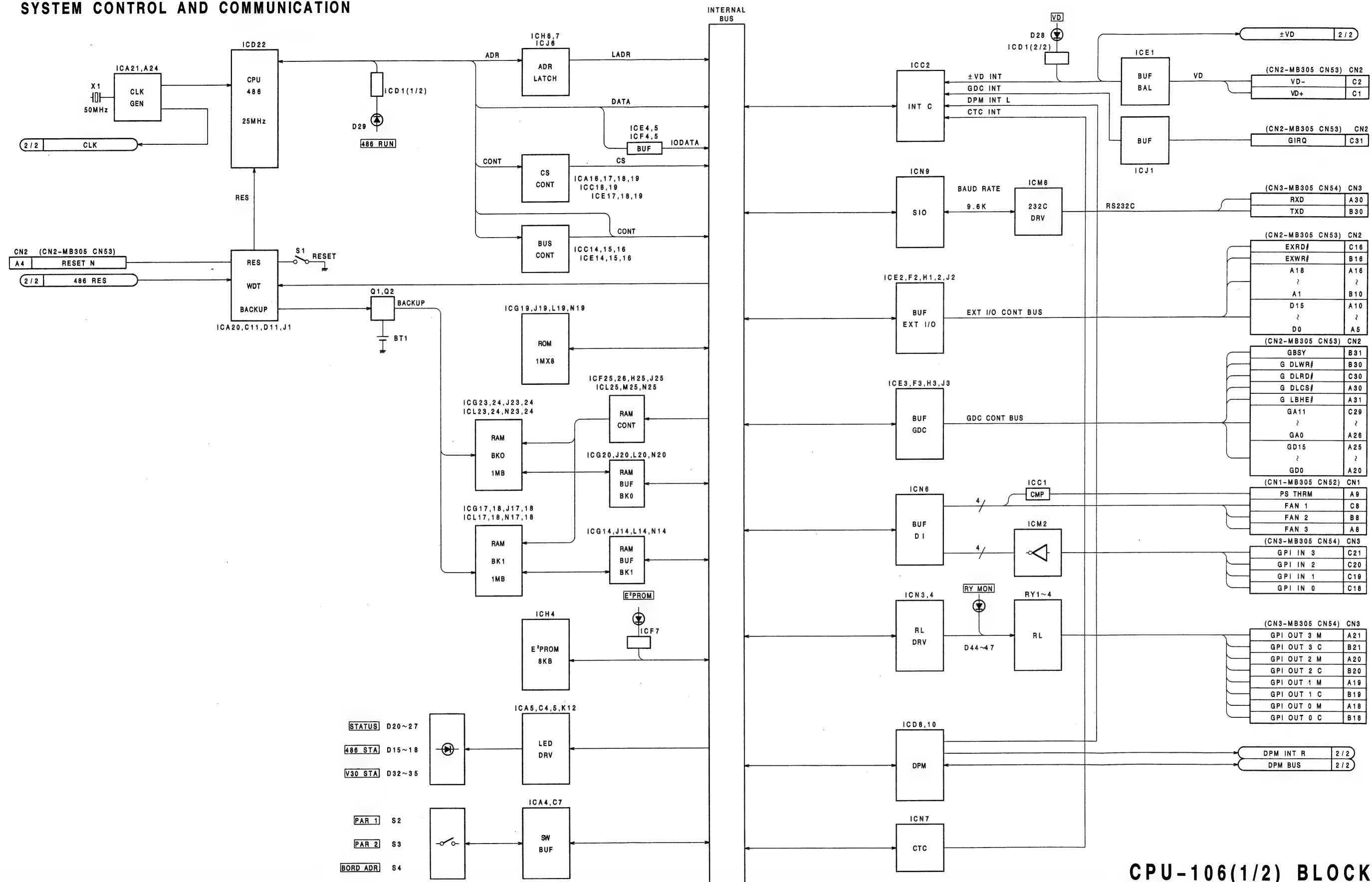


ALU-11 ALU-11



ALU-11 BLOCK
DME-5000

SYSTEM CONTROL AND COMMUNICATION



CPU-106(1/2) BLOCK
DME-5000

2/2

153) CN2

C2
C1

153) CN2

C31

154) CN3

A30
B30

153) CN2

C16
B16
A16
?
B10
A10
?
A5

153) CN2

B31
B30
C30
A30
A31
C29
?
A26
A25
?
A20

152) CN1

A9
C8
B8
A8

154) CN3

C21
C20
C19
C18

154) CN3

A21
B21
A20
B20
A19
B19
A18
B18

2/2

2/2

OCK

6-4

H

I

J

K

L

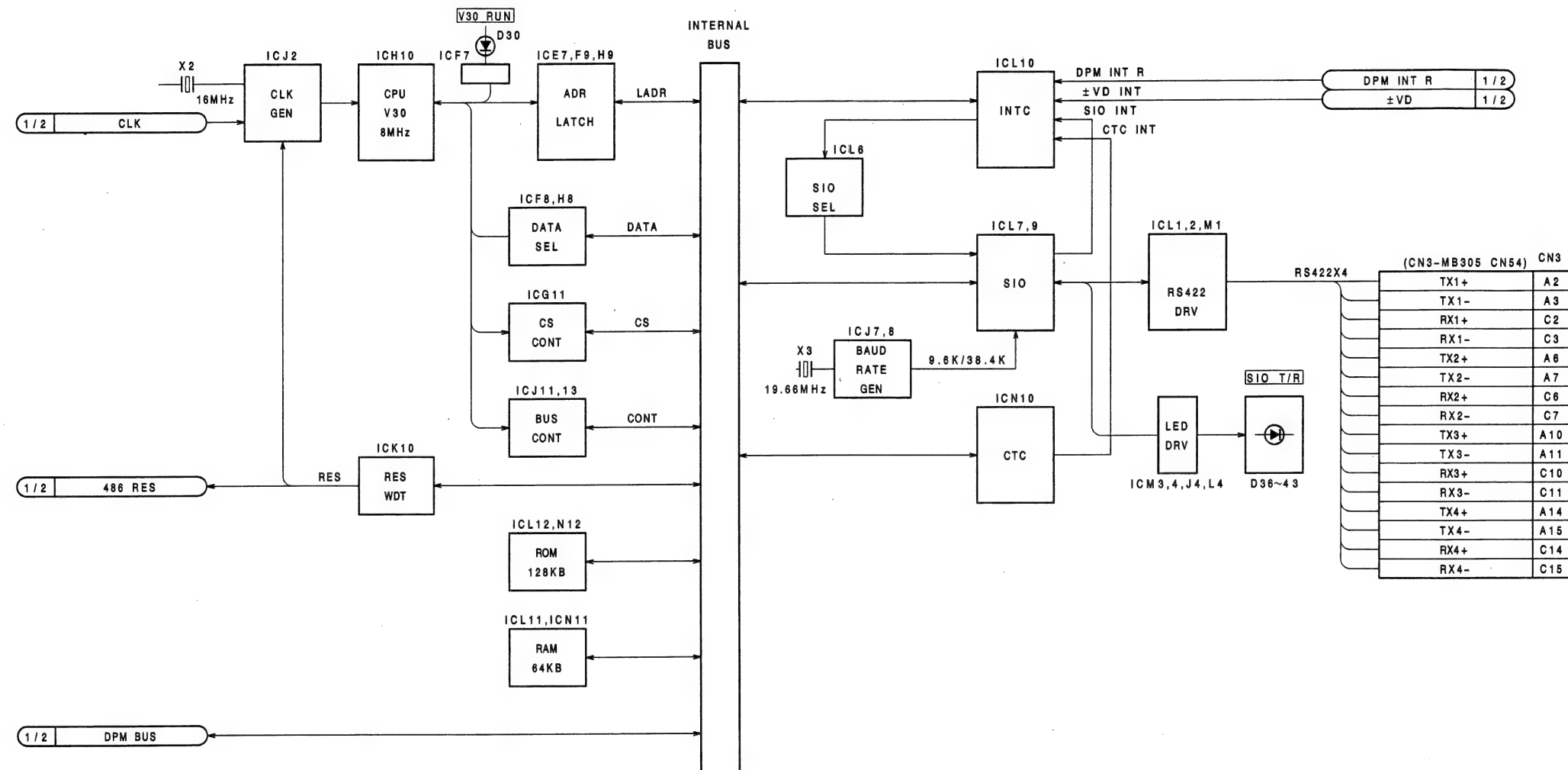
M

6-4

N

O

SYSTEM CONTROL AND COMMUNICATION

CPU-106(2/2) BLOCK
DME-5000

6-5

6-5

A

B

C

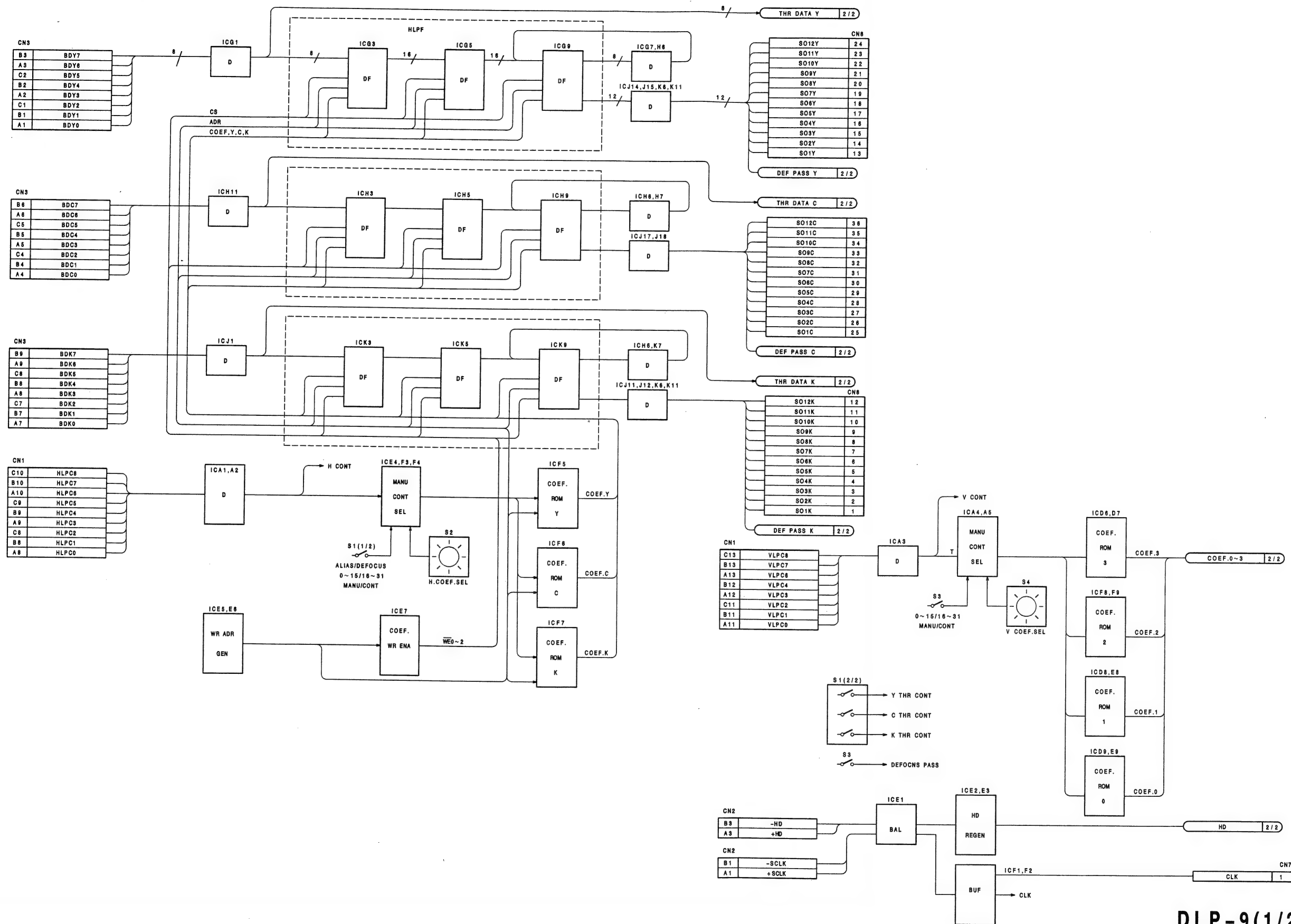
D

E

F

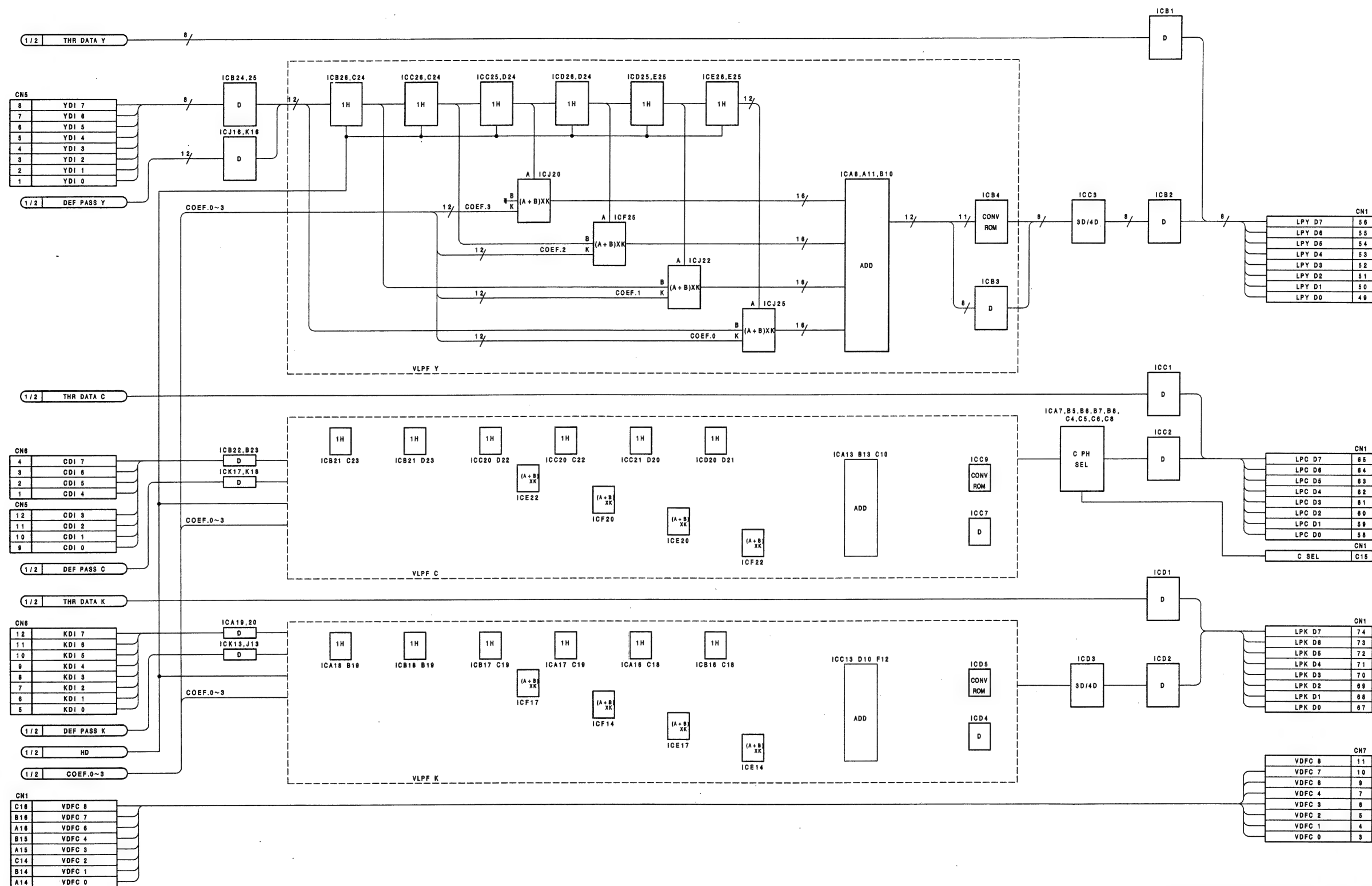
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HORIZONTAL AND VERTICAL LOW PASS FILTER



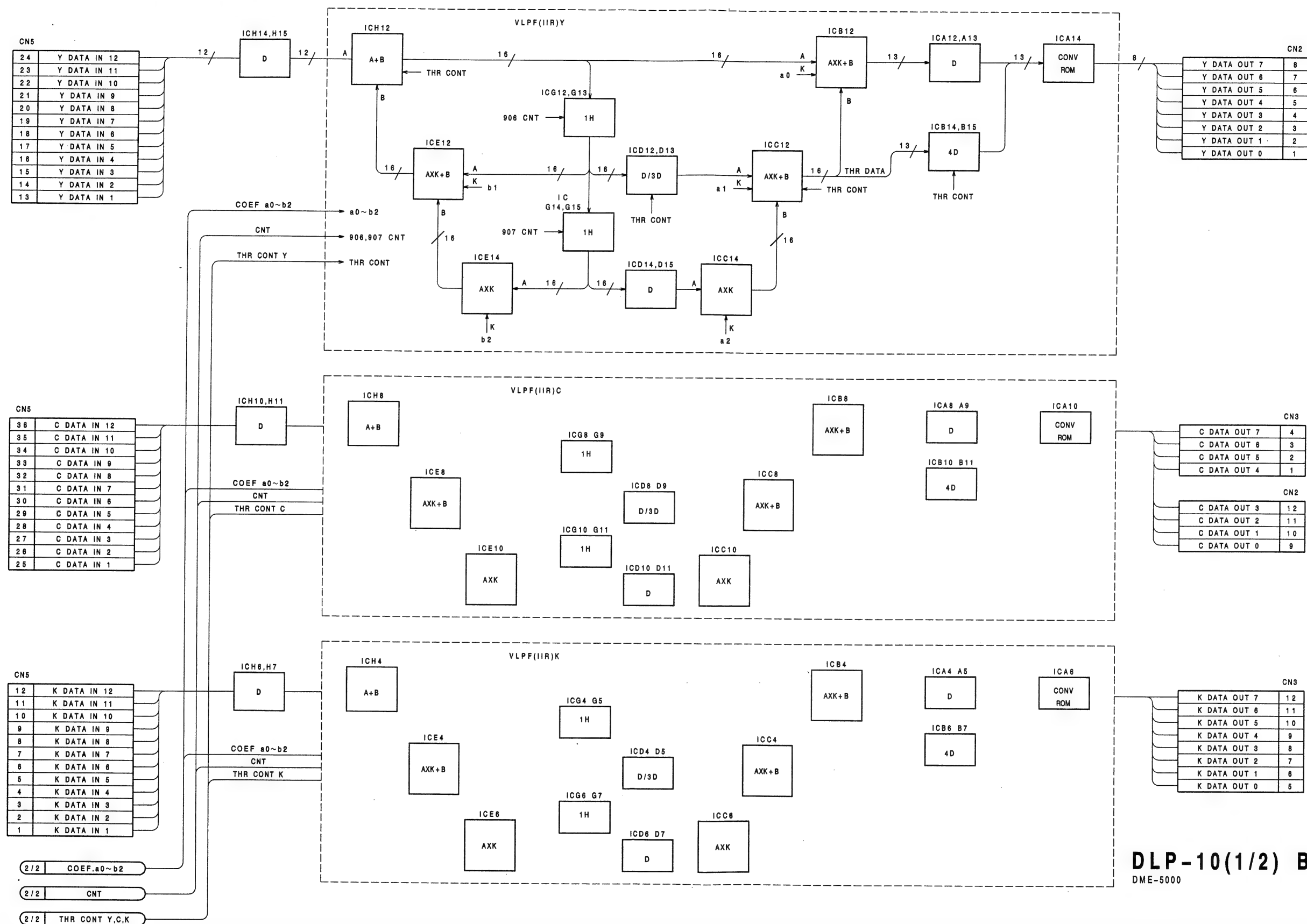
DLP-9(1/2) BLOCK
DME-5000

HORIZONTAL AND VERTICAL LOW PASS FILTER



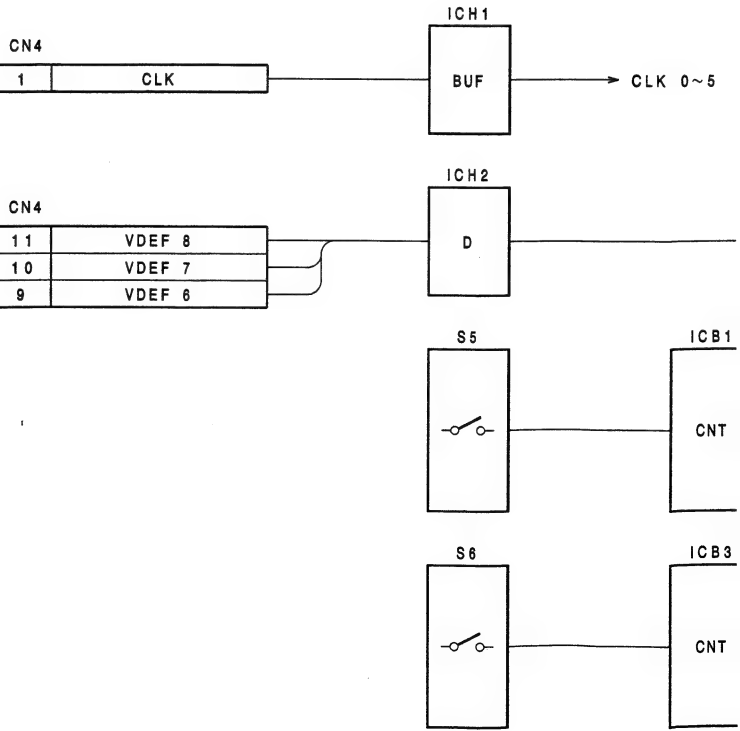
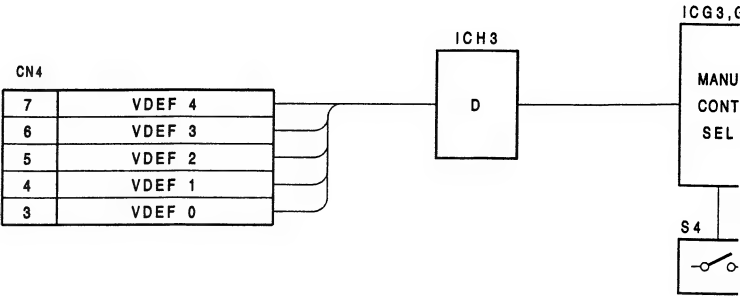
DLP-9(2/2) BLOCK
DME-5000

IIR VERTICAL LOW PASS FILTER



DLP-10(1/2) BLOCK
DME-5000

IIR VERTICAL LOW PASS FILTER



A

B

6-9

C

D

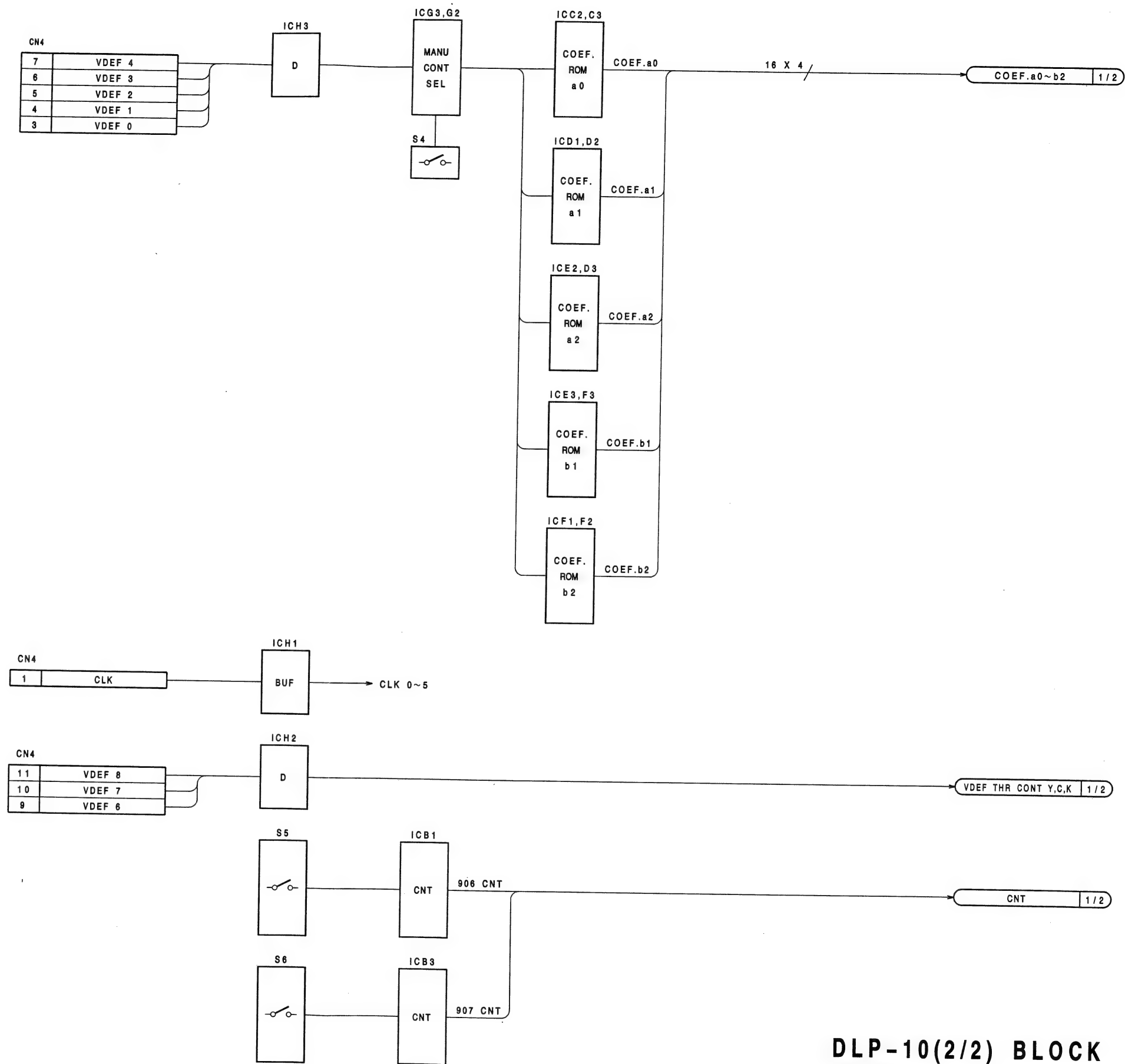
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F

6-9

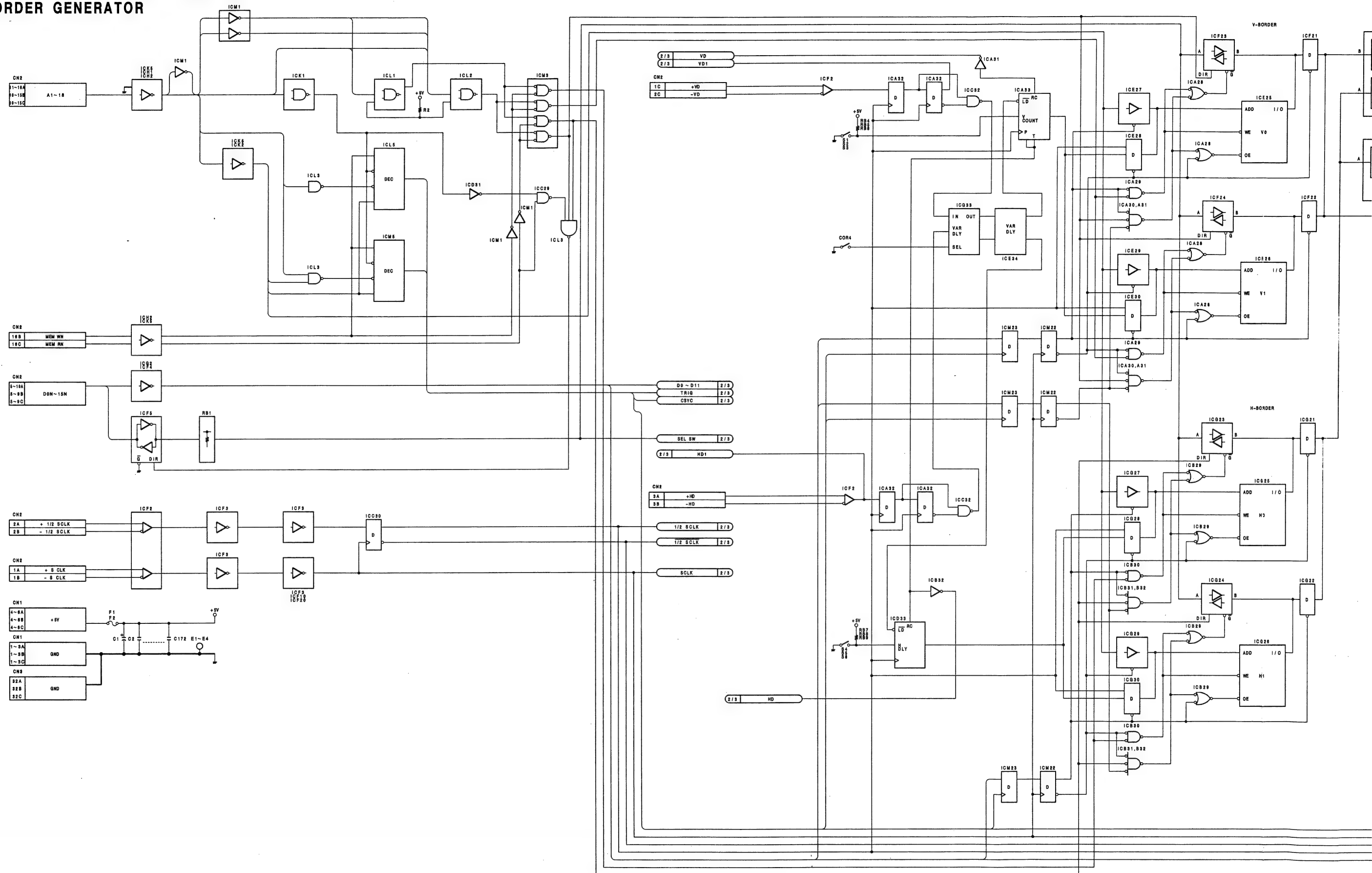
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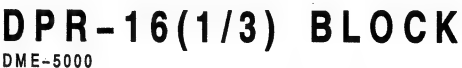
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DLP-10(2/2) BLOCK
DME-5000

6-10





DME-5000

6 - 10

6-10

E

F

G

H

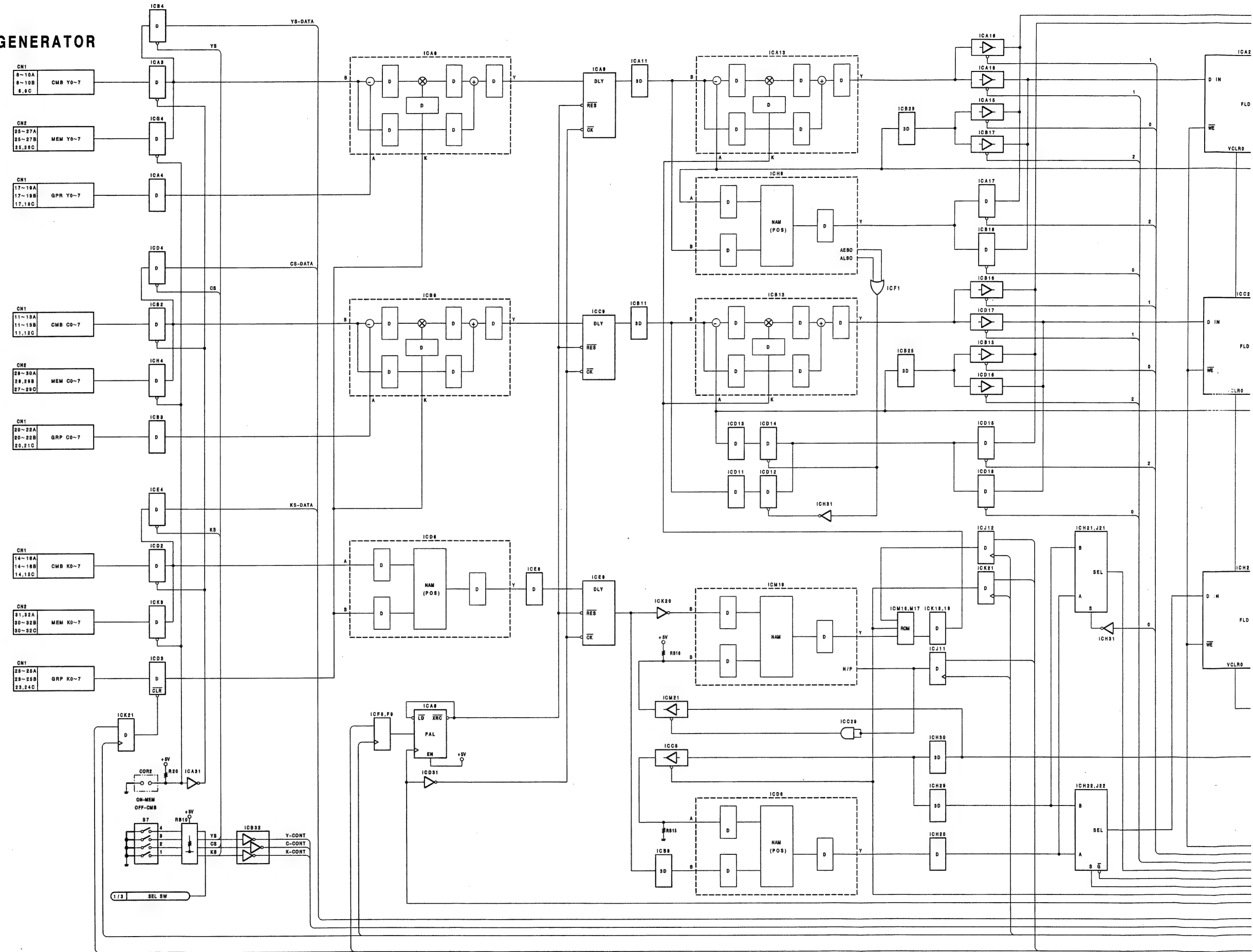
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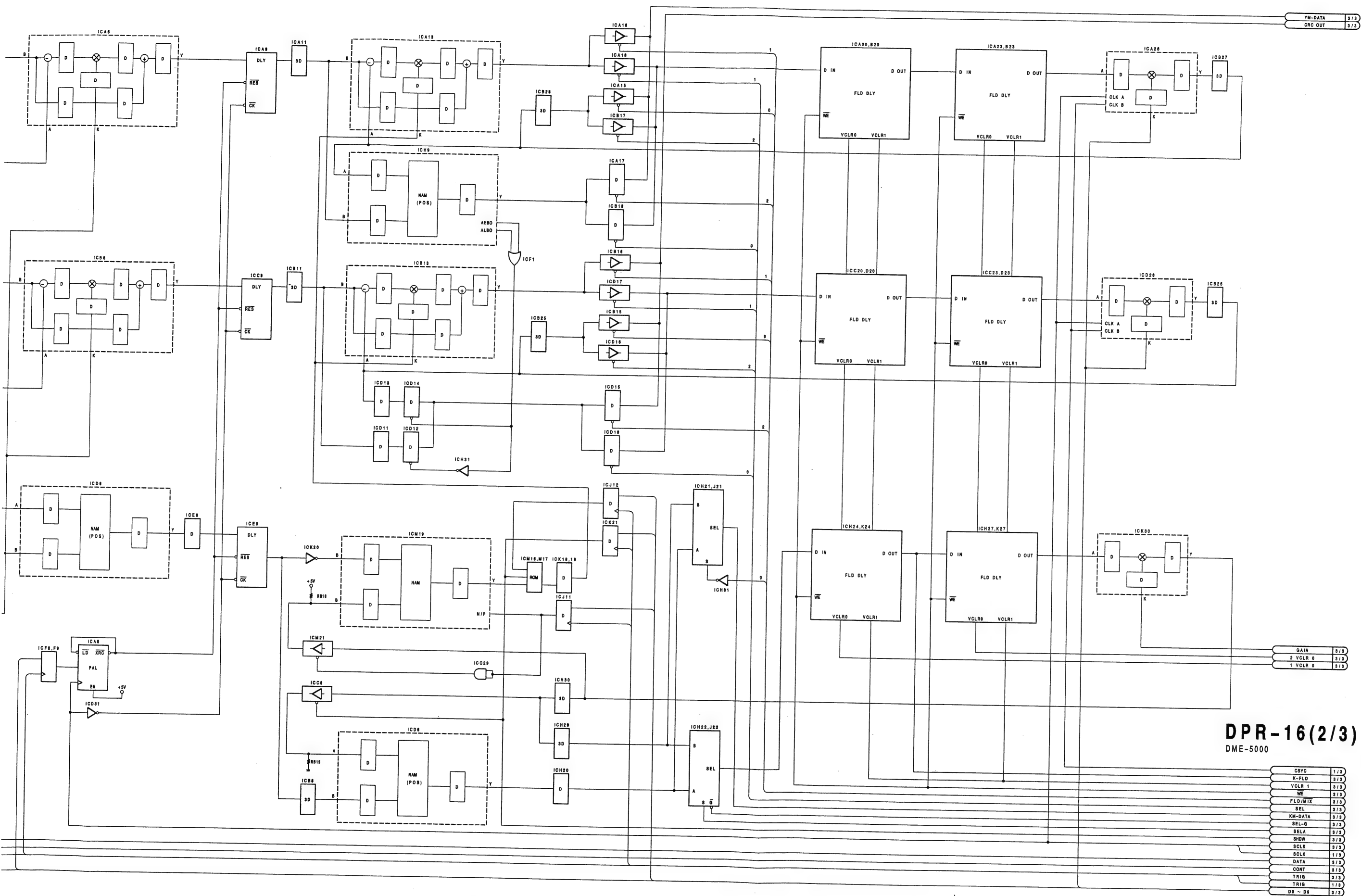
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K

1

OUTPUT RECURSIVE EFFECT GENERATOR AND BORDER GENERATOR

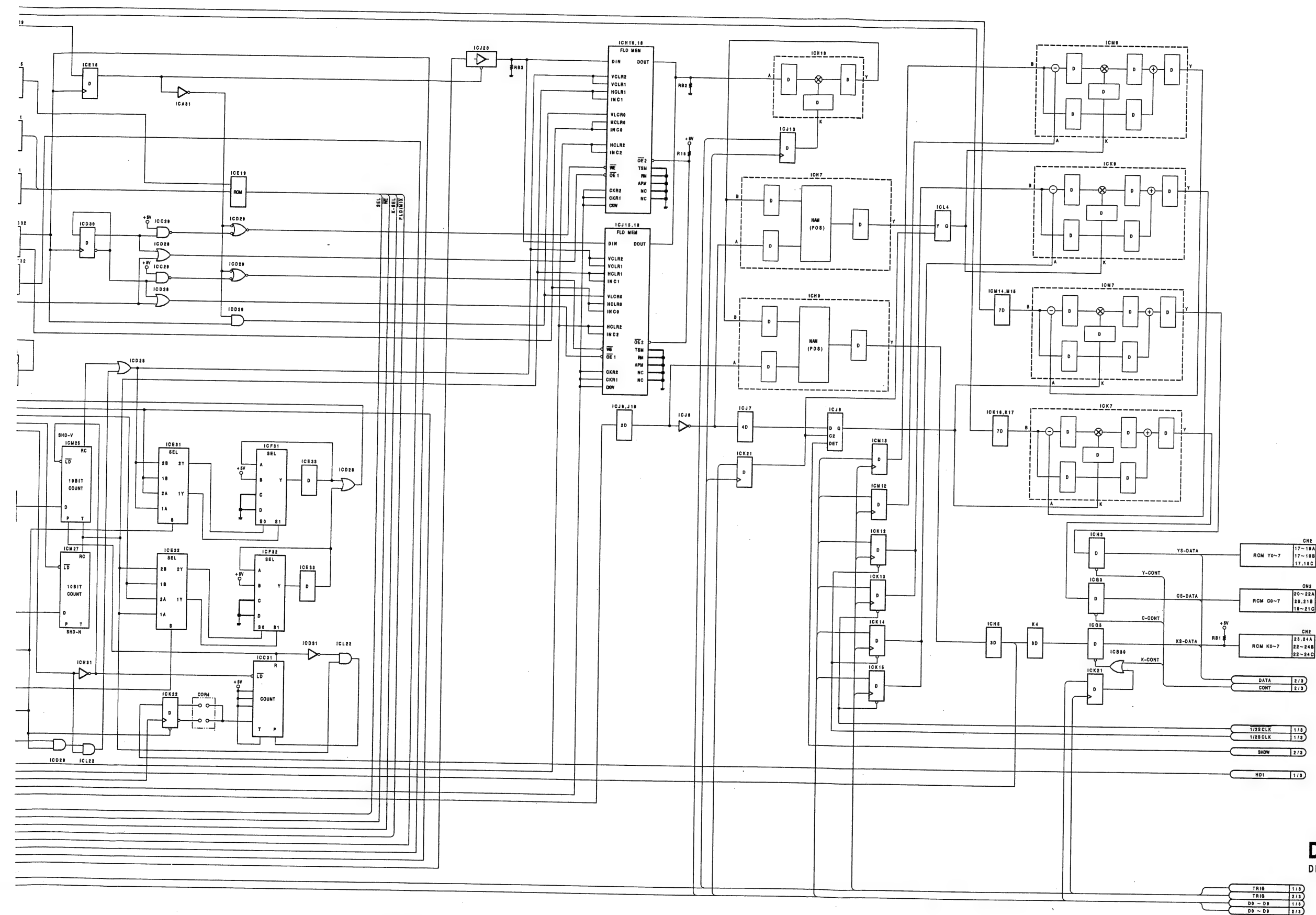




DPR-16(2/3) BLOCK
DME-5000

GAIN	3/3
2 VCLR 0	3/3
1 VCLR 0	3/3

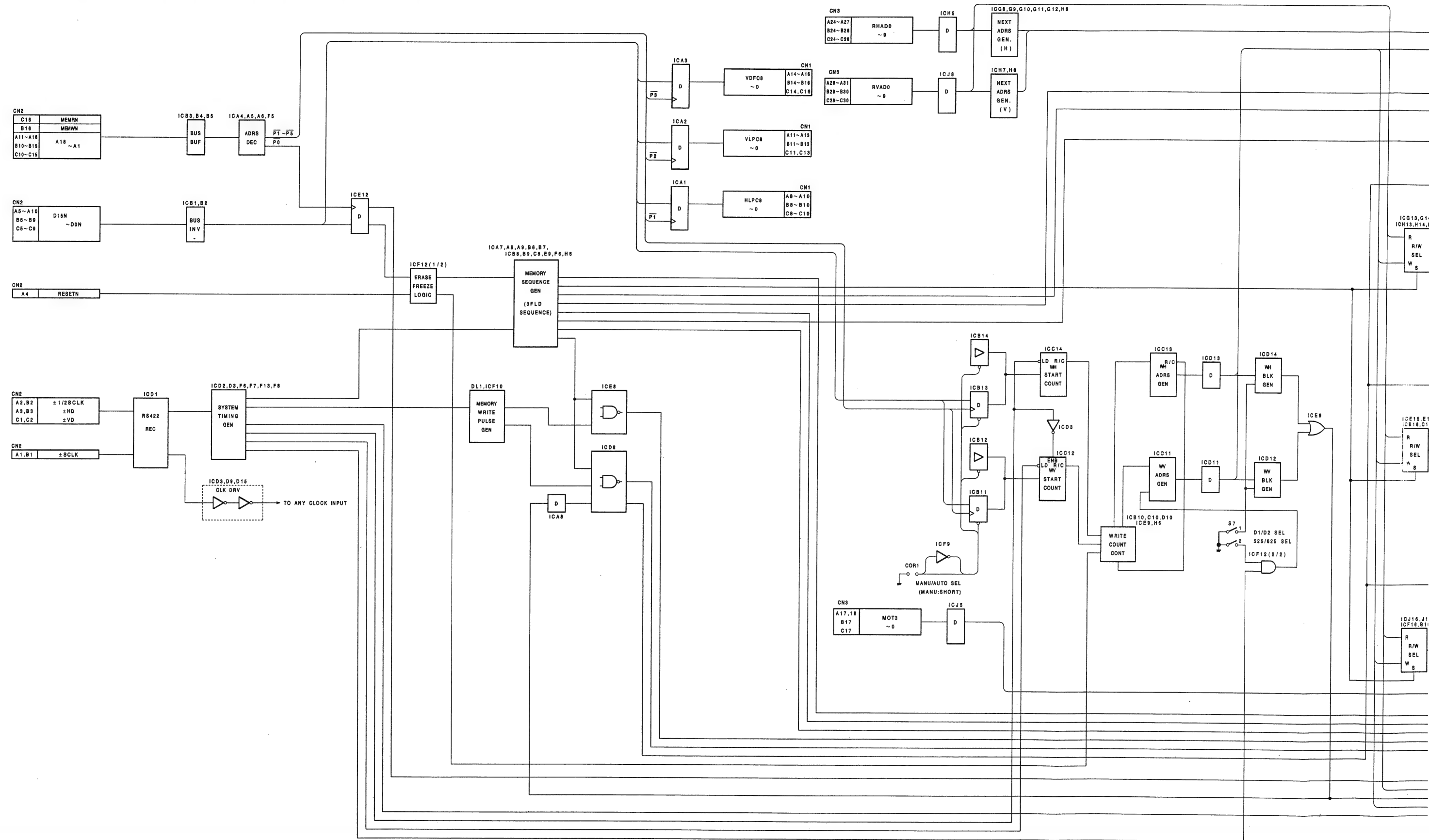
QBYD	1/3
K-FLD	3/3
VCLR 1	3/3
WE	3/3
FLD/MIX	3/3
SEL	3/3
KM-DATA	3/3
SEL-B	3/3
SELA	3/3
SHDW	3/3
SCLK	3/3
SCLK	1/3
DATA	3/3
CONT	3/3
TRIG	3/3
TRIG	1/3
DO - DS	3/3

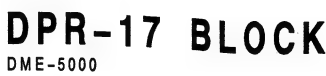


DPR-16(3/3) BLOCK
DME-5000

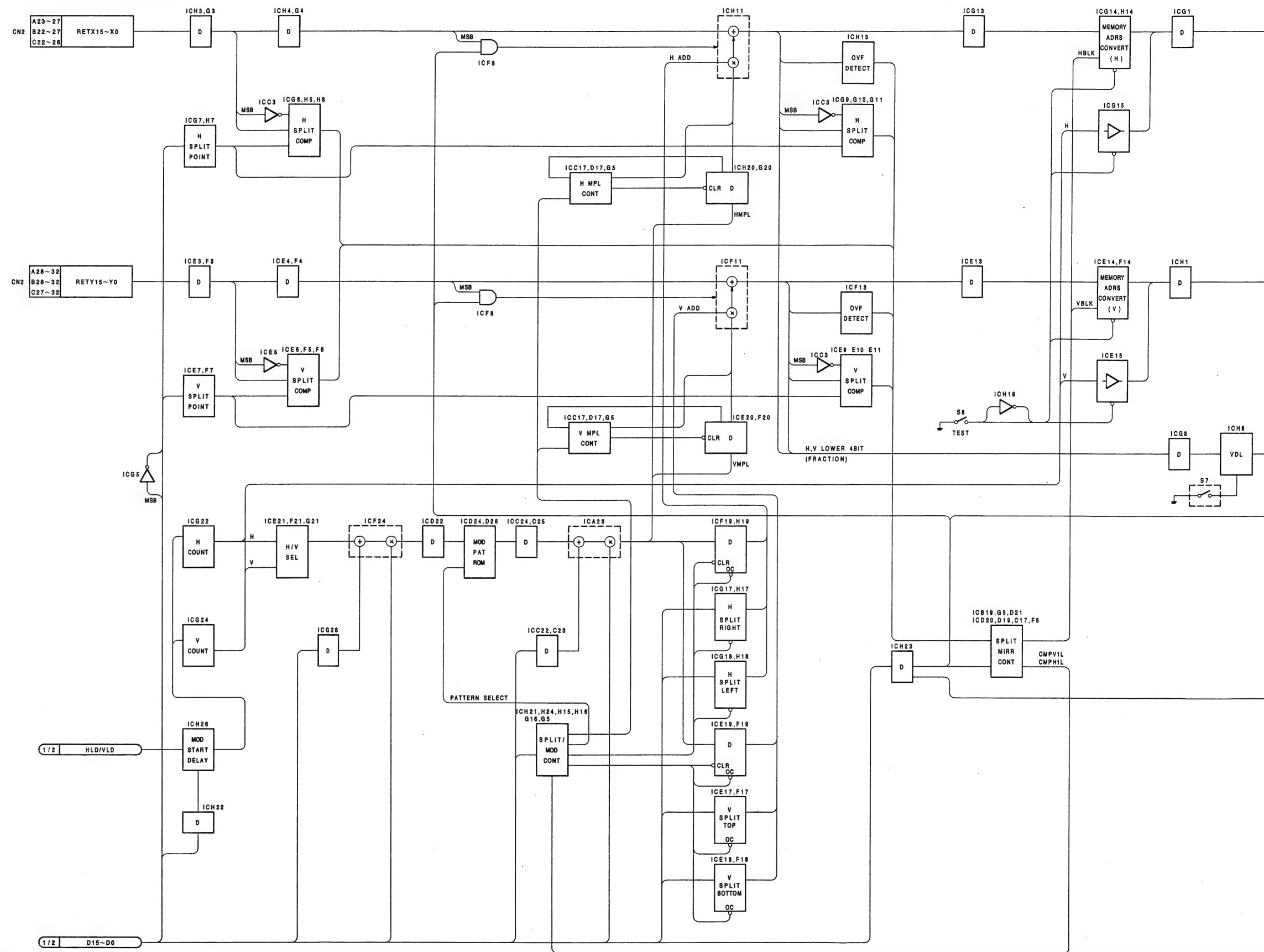
TRIG	1
TRIG	2
D0 ~ D9	1
D0 ~ D9	2

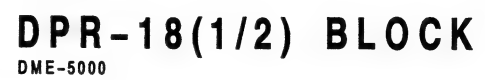
MEMORY ADDRESS SELECTOR AND WRITE ADDRESS GENERATOR



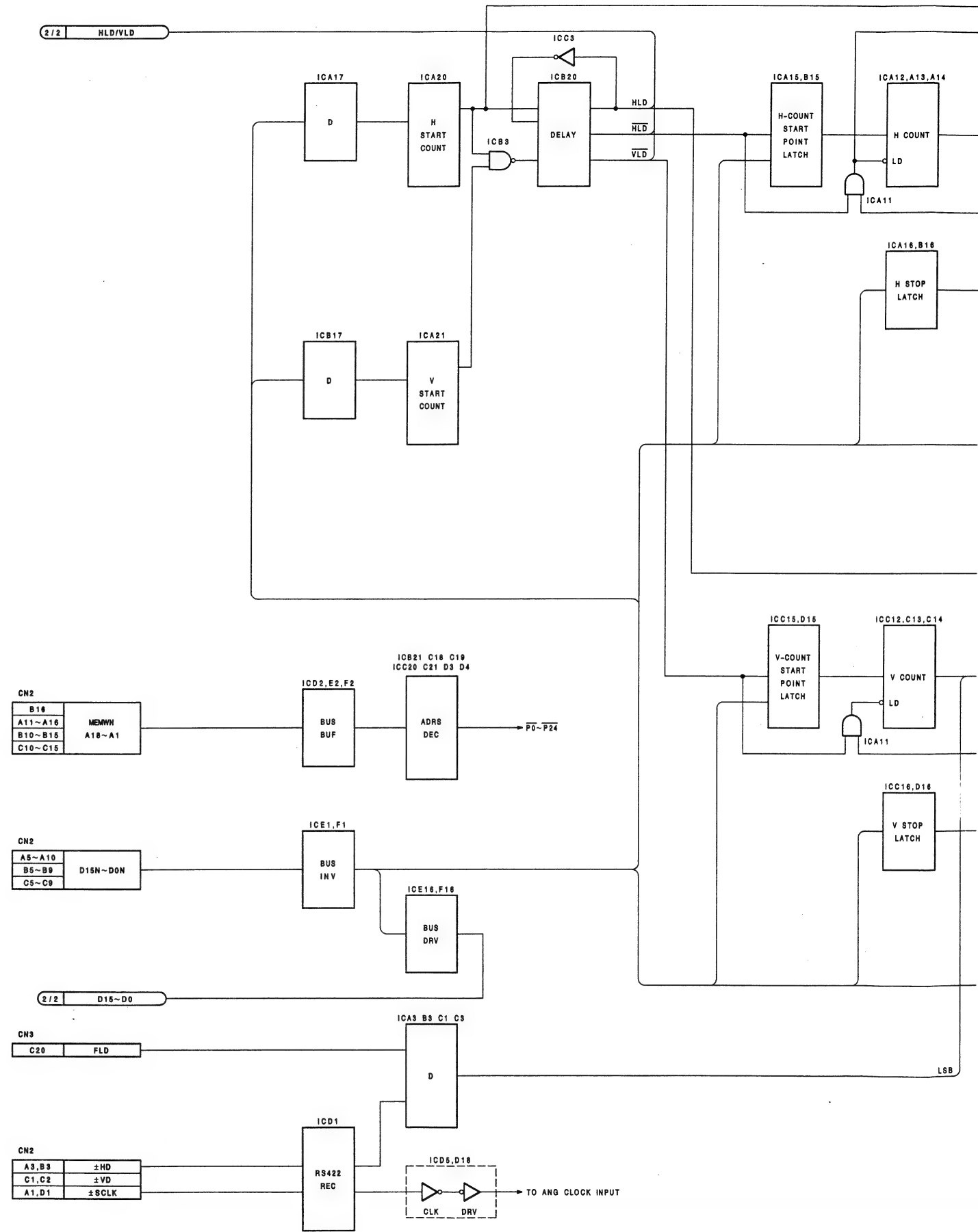


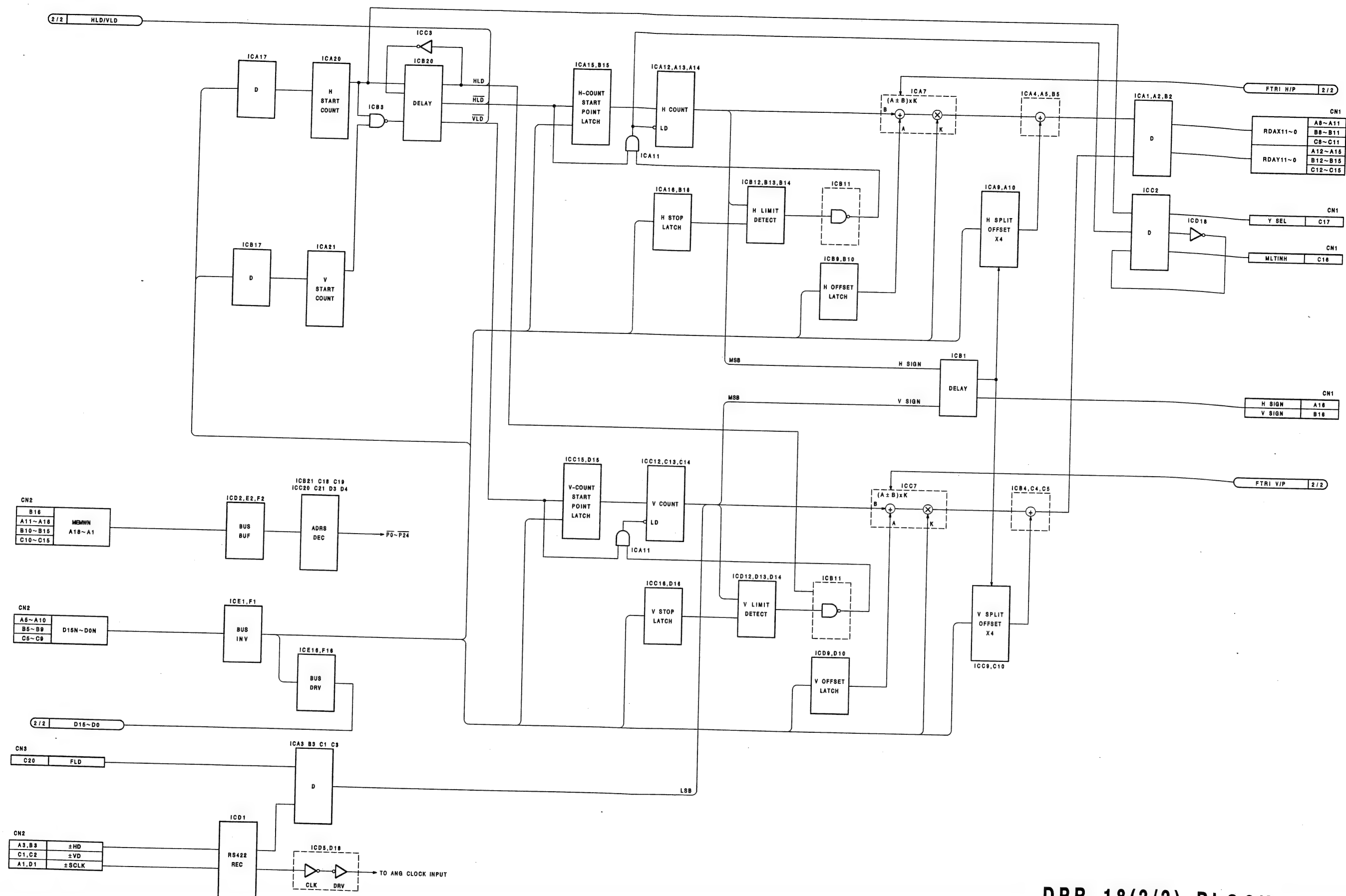
READ ADDRESS GENERATOR AND SPLIT MIRROR GENERATOR





READ ADDRESS GENERATOR AND SPLIT MIRROR GENERATOR



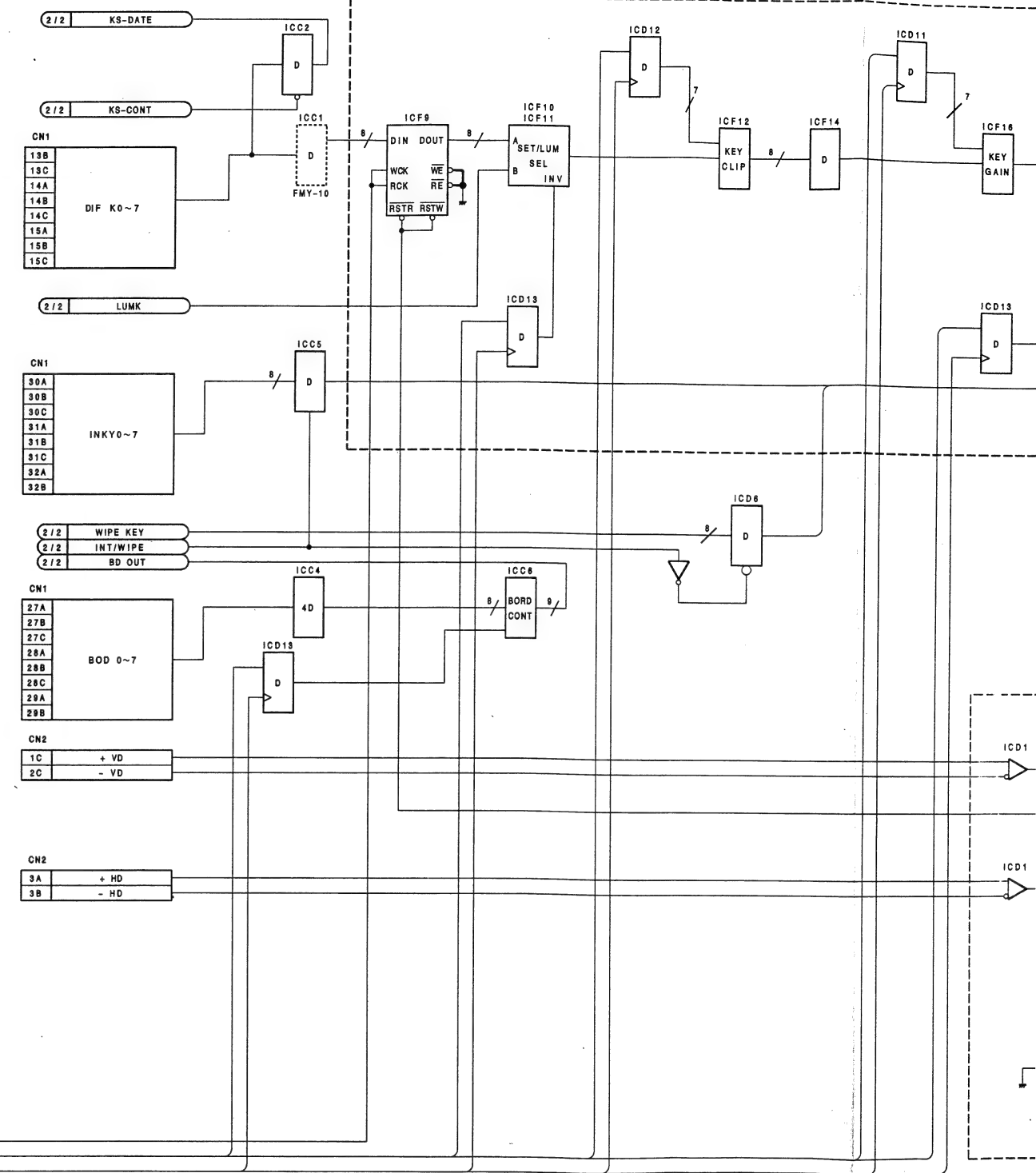
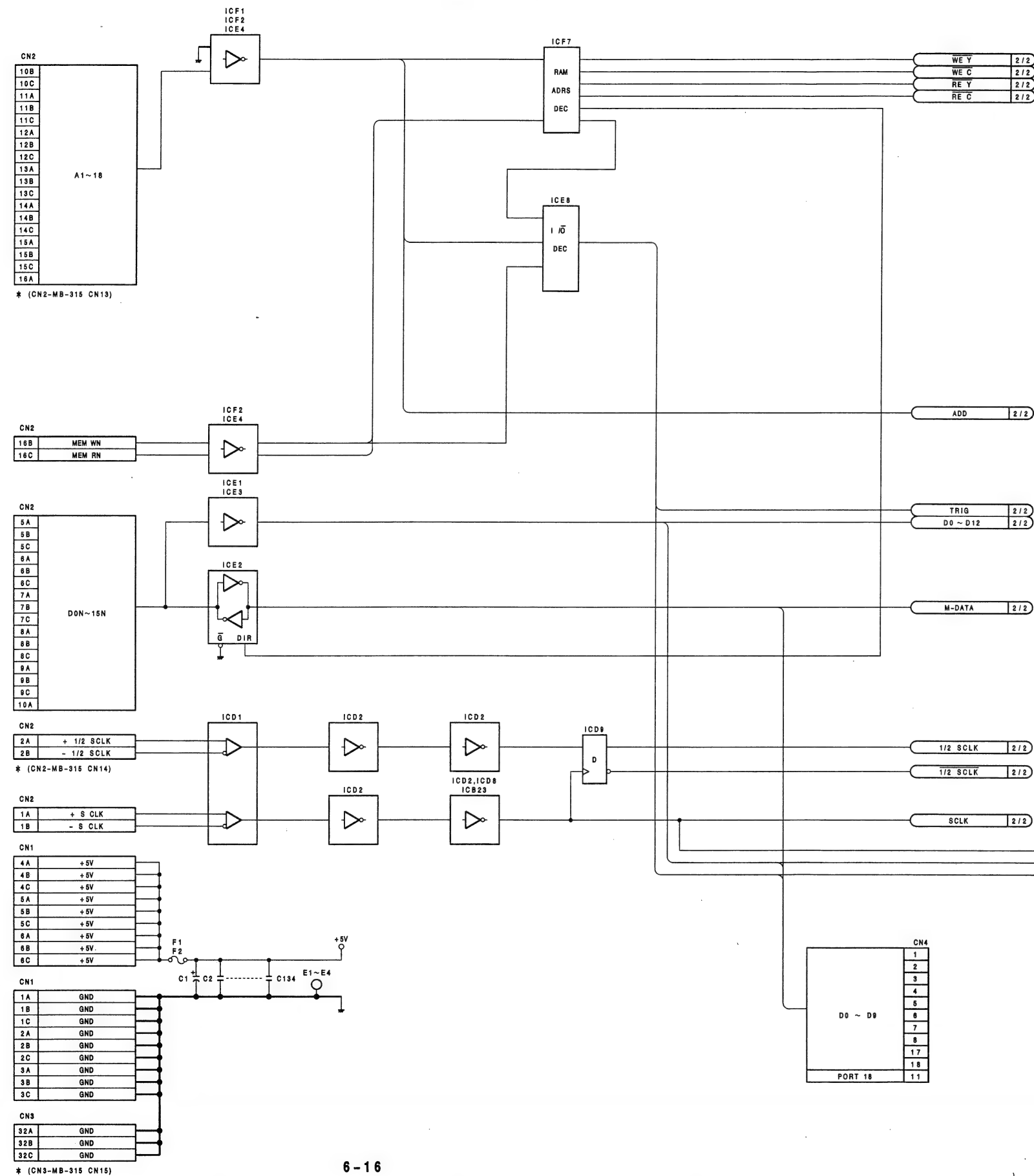


DPR-18(2/2) BLOCK
DME-5000

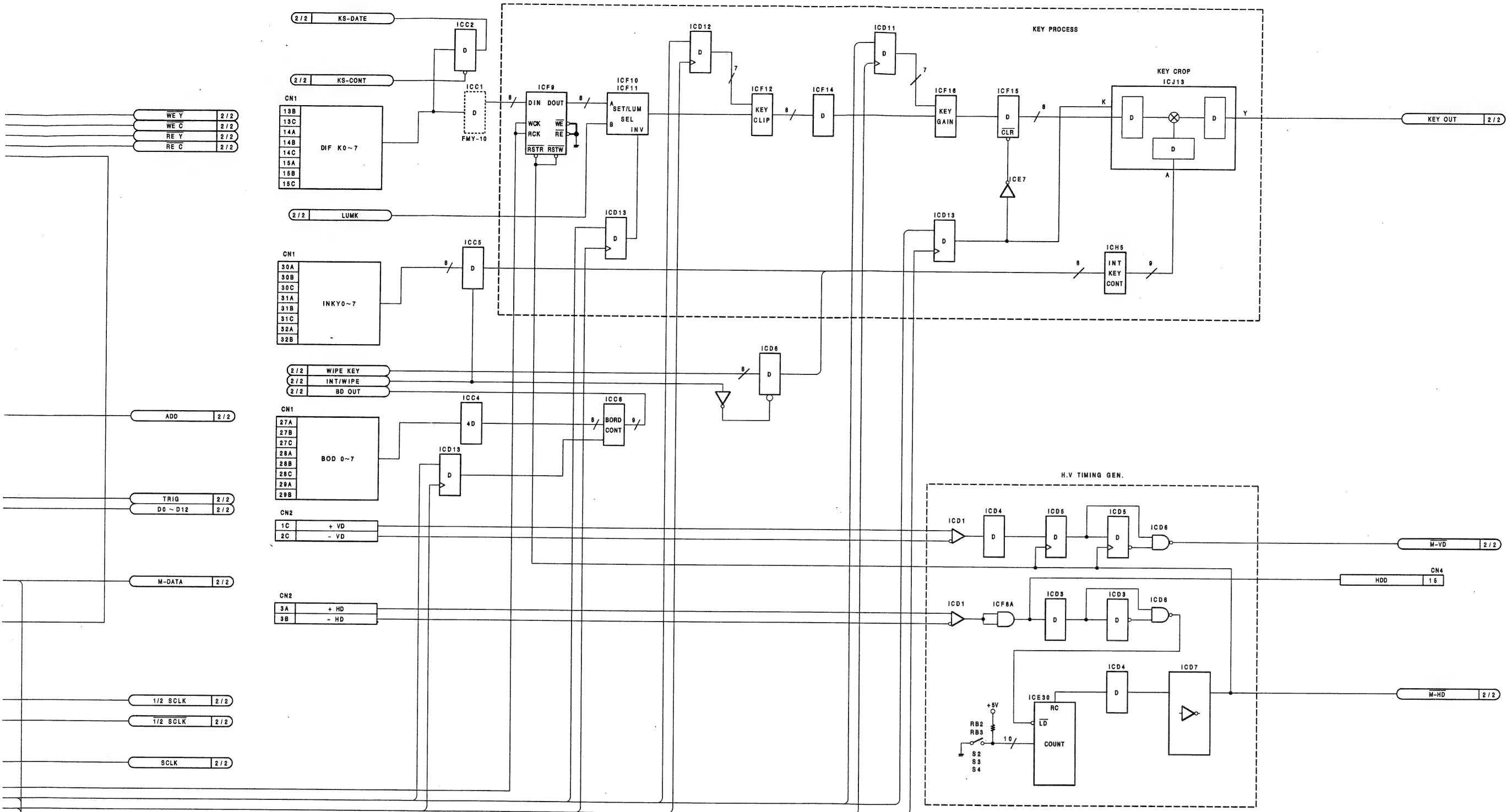
6-15

6-15

INPUT PIXEL EFFECT GENERATOR AND MOTION DETECT



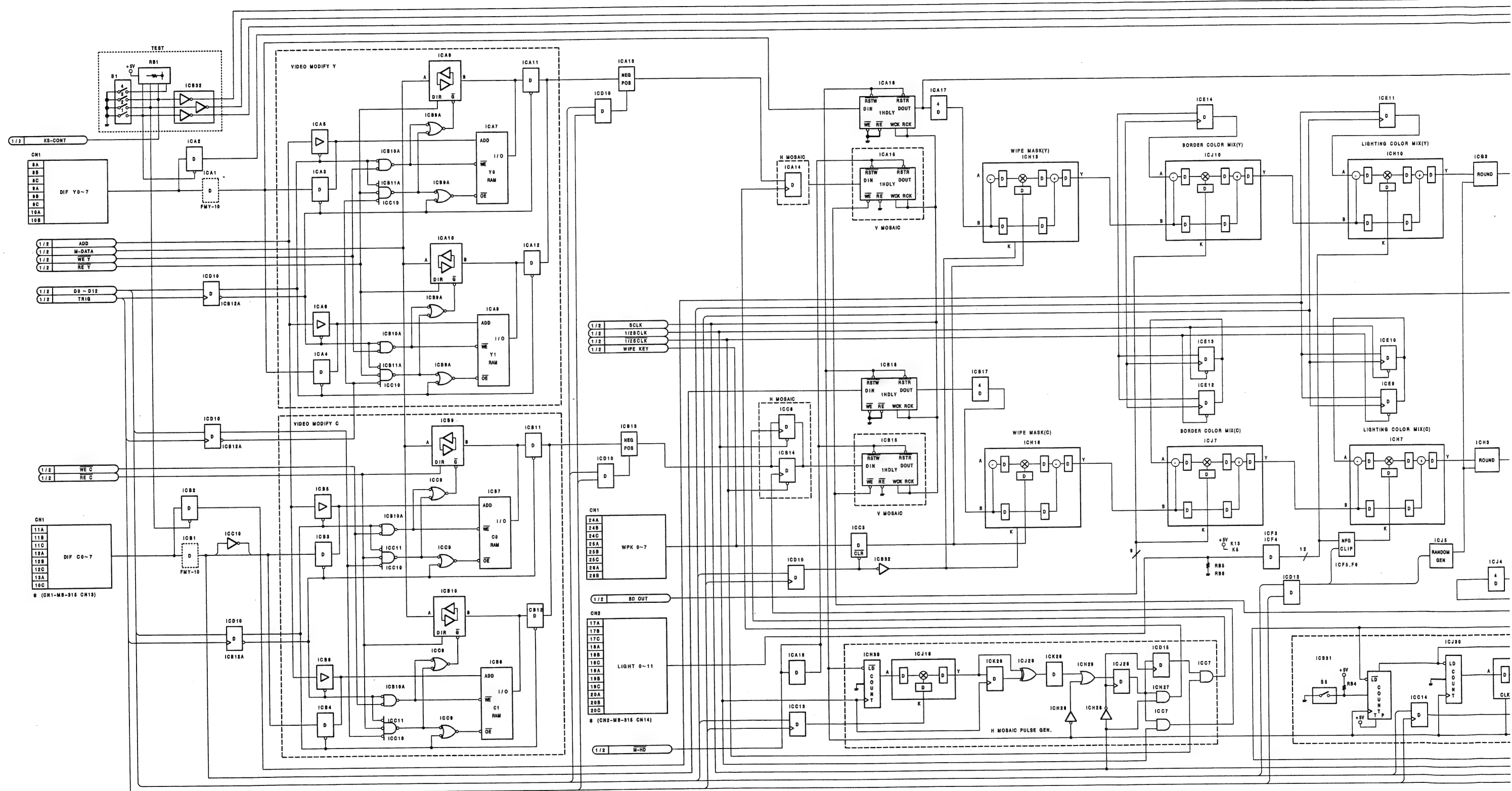
DPR-42(1/2) DPR-42(1/2)

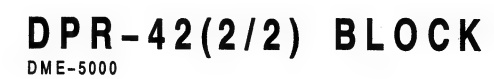


		CN4
D0 ~ D9		1
		2
		3
		4
		5
		6
		7
		8
		17
PORT 18		11

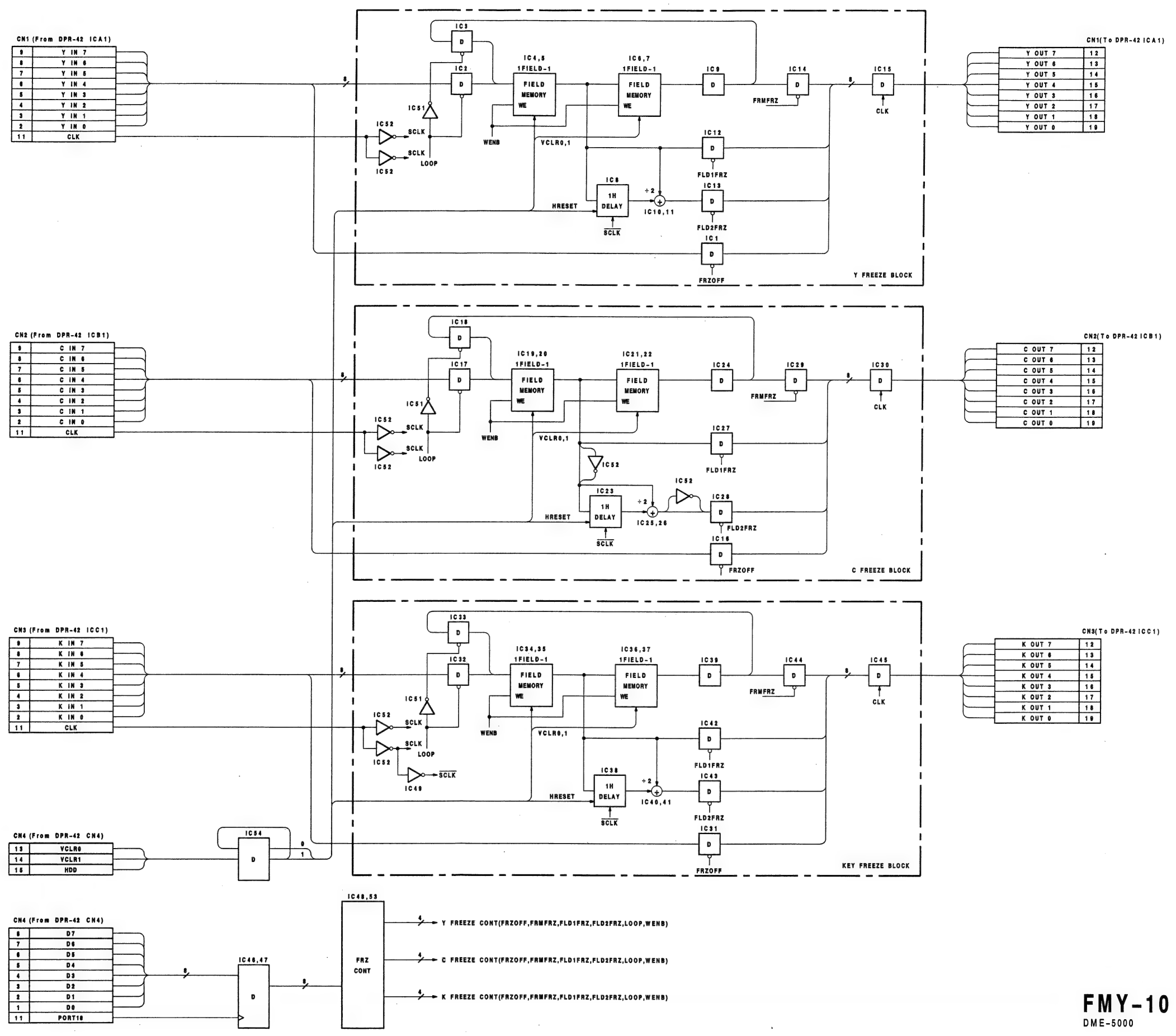
DPR-42(1/2) BLOCK
DME-5000

INPUT PIXEL EFFECT GENERATOR AND MOTION DETECT





INPUT FREEZE



FMY-10 BLOCK
DME-5000

CK

6-18

J

K

L

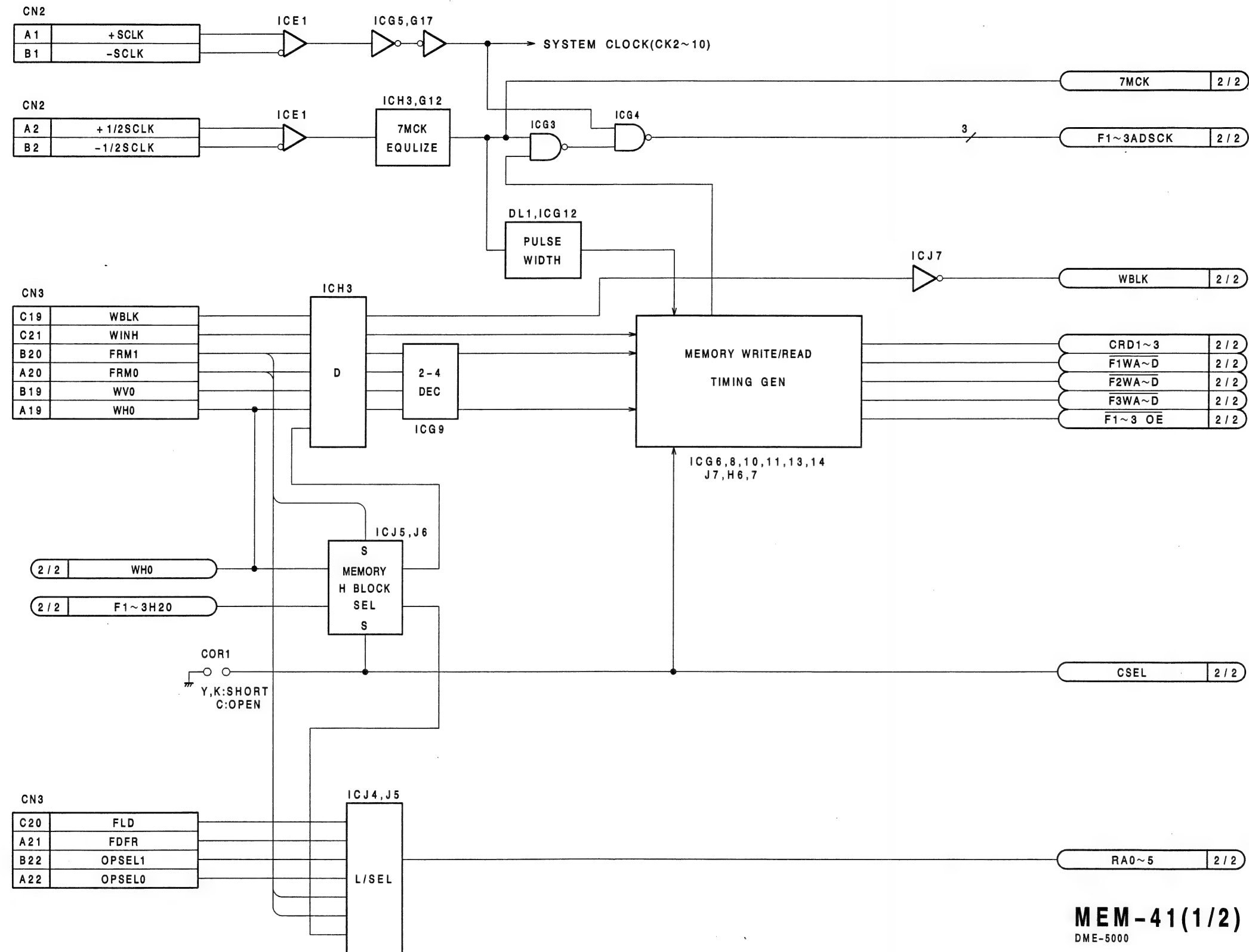
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N

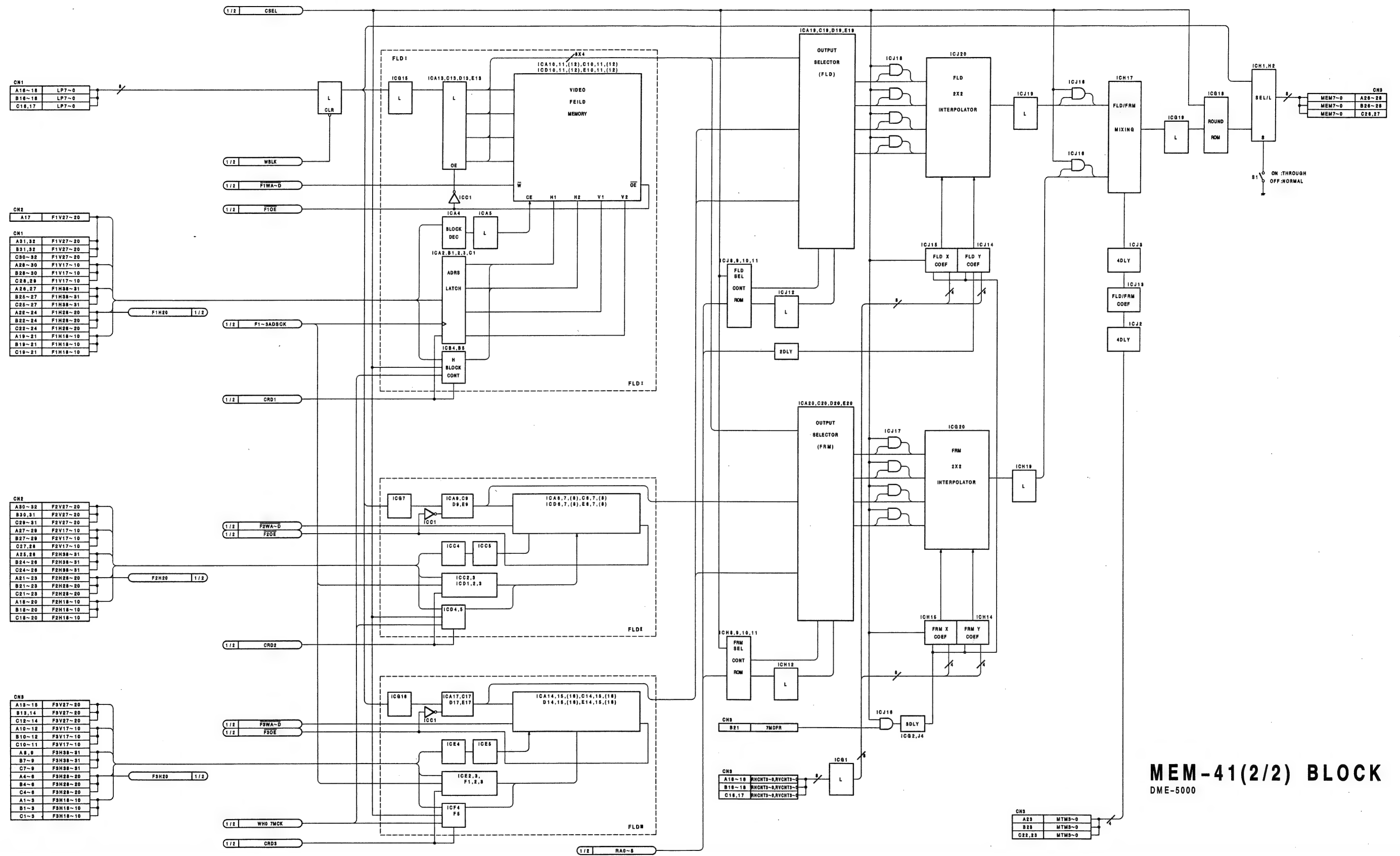
6-18

O

3 FIELD VIDEO MEMORY AND INTERPOLATOR



3 FIELD VIDEO MEMORY AND INTERPOLATOR



MEM-41(2/2) BLOCK
DME-5000

SECTION 7

SEMICONDUCTOR PIN ASSIGNMENTS

ここに記載されているIC, トランジスタ, ダイオードはそれぞれの機能を等価的に表したものです。したがって互換性を表すものではありません。(互換性のない型名が併記されている事もあります。) 部品の交換をする時は, SPARE PARTSの章を参照して下さい。

ICs, transistors and diodes of which functions are equivalent indicated are described here. Therefore, incompatible device names may be described together. For parts replacement, refer to the Spare Parts section in this manual.

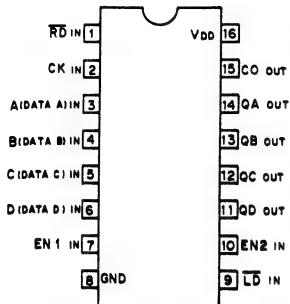
IC	PAGE	IC	PAGE	IC	PAGE	IC	PAGE
74AC163PC.....7-2		CX23043.....7-12		SN74ALS163BN.....7-5		SN74LS164N.....7-5	
74AC174PC.....7-2		CXD8040G.....7-12		SN74ALS175N.....7-5		SN74LS283N.....7-6	
74AC245PC.....7-2		CXD8156Q.....7-13		SN74ALS240AN.....7-6		SN74LS640-1N.....7-30	
74AC32PC.....7-2		CXD8157Q.....7-14		SN74ALS244BN.....7-29		SN74LS682N.....7-33	
74AC74PC.....7-2		CXD8158Q.....7-15		SN74ALS273N.....7-29		TC74AC164P.....7-33	
74ACT240SJ.....7-3		CXD8214P.....7-12		SN74ALS27N.....7-28		TC74HC123AP.....7-33	
74ACT244PC.....7-3		CXK1206AM.....7-16		SN74ALS30AN.....7-29		TD62083AP.....7-34	
74ACT245PC.....7-2		CXK1206M.....7-16		SN74ALS32N.....7-6		TMC2111B2C.....7-33	
74ACT373PC.....7-3		CXK581001P-70L.....7-16		SN74ALS374AN.....7-7		TMS27C256-15JL.....7-34	
74ACT574SJ.....7-3		CXK5814P-35.....7-17		SN74ALS541N.....7-29		TMS27C512-20JL.....7-34	
74F00PC.....7-3		CXK58257ASP-10L.....7-17		SN74ALS564AN.....7-29		UPD42101C-3.....7-36	
74F02PC.....7-3		CXQ70116P-8.....7-18		SN74ALS574BN.....7-7		UPD72001C-11.....7-35	
74F04PC.....7-4		CXQ71011P.....7-18		SN74ALS575ANT.....7-29		WS57C291B-35S.....7-36	
74F08PC.....7-4		CXQ71051P.....7-19		SN74ALS640AN.....7-30		WS57C291B-45S.....7-36	
74F10PC.....7-4		CXQ71054P.....7-19		SN74ALS688N.....7-30			
74F139PC.....7-4		CXQ71059P.....7-20		SN74ALS74AN.....7-8		DIODE	
74F148PC.....7-4		CY7C194-35PC.....7-20		SN74ALS86N.....7-8		10E-1.....7-36	
74F153PC.....7-4		CY7C199-45PC.....7-21		SN74ALS874NT.....7-30		1SS119.....7-36	
74F157APC.....7-5		CY7C271-55PC.....7-21		SN74HC02AN.....7-30		HLMP-6300.....7-36	
74F158APC.....7-5		CY7C291L-35PC.....7-22		SN74HC03AN.....7-30		HLMP-6500.....7-36	
74F163APC.....7-5		EPM5016DC-2.....7-22		SN74HC04AN.....7-31		S3S4M.....7-36	
74F164PC.....7-5		EPM5016PC-1.....7-22		SN74HC04ANS.....7-31		TLG123A.....7-36	
74F175PC.....7-5		GAL16V8B-7LP.....7-22		SN74HC109AN.....7-31		TRANSISTOR	
74F20PC.....7-6		HM63021FP-28.....7-23		SN74HC10AN.....7-31		2SA952.....7-36	
74F240PC.....7-6		HM63021P-28.....7-23		SN74HC132AN.....7-31		2SB1140.....7-36	
74F244PC.....7-6		HN58C65P-25.....7-23		SN74HC133N.....7-31			
74F283PC.....7-6		L29C520PC.....7-24		SN74HC138AN.....7-31			
74F283SJ.....7-6		LM2903P.....7-24		SN74HC139ANS.....7-31			
74F32PC.....7-6		LSP001AC-Q.....7-24		SN74HC14AN.....7-32			
74F350PC.....7-6		LT1171CT.....7-25		SN74HC154NT.....7-32			
74F374PC.....7-7		MAX232CPE.....7-25		SN74HC174AN.....7-2			
74F382PC.....7-7		MAX691CPE.....7-25		SN74HC174ANS.....7-2			
74F398PC.....7-7		MB7112L.....7-25		SN74HC175AN.....7-32			
74F399PC.....7-7		MB8421-90LP.....7-26		SN74HC175ANS.....7-32			
74F534PC.....7-8		MB8431-90LP.....7-26		SN74HC240AN.....7-3			
74F574PC.....7-7		MC74HC688N.....7-27		SN74HC244AN.....7-3			
74F646PC.....7-8		N74F85N.....7-27		SN74HC245AN.....7-2			
74F64PC.....7-8		PALC22V10-25PC.....7-27		SN74HC273AN.....7-32			
74F74PC.....7-8		PEEL18CV8-15.....7-27		SN74HC32AN.....7-2			
74F86PC.....7-8		PEEL18CV8-25.....7-27		SN74HC374AN.....7-32			
A80486DX-33.....7-9		PEEL18CV8P-35.....7-27		SN74HC4024N.....7-32			
AM26LS30PC.....7-10		SM5828P.....7-28		SN74HC574AN.....7-3			
AM26LS32ACN.....7-10		SN74ALS00AN.....7-3		SN74HC574ANS.....7-3			
AM26LS32PC.....7-10		SN74ALS04BN.....7-4		SN74HC74AN.....7-2			
AM27C020-120DC.....7-10		SN74ALS08N.....7-4		SN74HCT240AN.....7-3			
AM29C827APC.....7-10		SN74ALS138N.....7-28		SN74HCT244AN.....7-3			
AT27HC642-55DC.....7-11		SN74ALS153N.....7-4		SN74HCT245AN.....7-2			
AT27HC642-55PC.....7-11		SN74ALS157AN.....7-5		SN74HCT374AN.....7-32			
CX20160.....7-11		SN74ALS158N.....7-5		SN74HCT574N.....7-3			
CX23024.....7-11		SN74ALS161BN.....7-28		SN74LS125AN.....7-33			

等価回路はICメーカーのData Bookに従いました。

The circuit diagram of each IC is obtained from the IC data book published by the manufacturer.

IC

74AC163PC (NS)

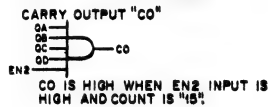
C-MOS PRESETTABLE SYNCHRONOUS 4BIT BINARY COUNTER
- TOP VIEW -

NOTE:

TYPE	V _{DD}
74ACT163 TYPE	+4.5 to +5.5V
TC74AC163 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

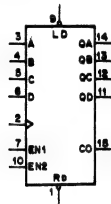
MODE SELECTION

CONTROL INPUTS				MODE
RD	LD	EN1	EN2	
0	X	X	X	RESET (SYNCHRONOUS)
1	0	X	X	PRESET (SYNCHRONOUS)
1	1	0	X	NO COUNT
1	1	X	0	NO COUNT
1	1	1	1	COUNT

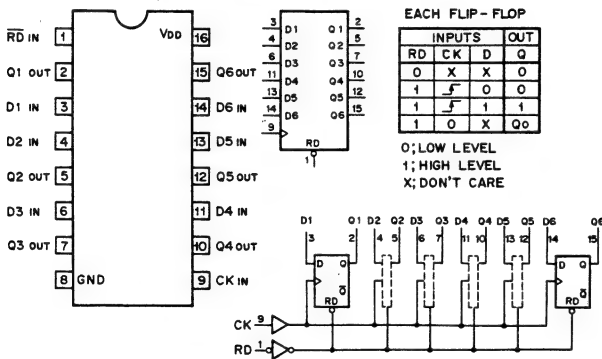


COUNT SEQUENCE

COUNT	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1



74AC174PC (NS)

SN74HC174AN (TI)
SN74HC174ANS (TI) FLAT PACKAGEC-MOS D-TYPE FLIP-FLOP WITH RESET
- TOP VIEW -

EACH FLIP-FLOP

INPUTS				OUT
RD	CK	D	Q	
0	X	X	0	
1	1	0	0	
1	1	1	1	
1	0	X	Q ₀	

0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE

NOTE:

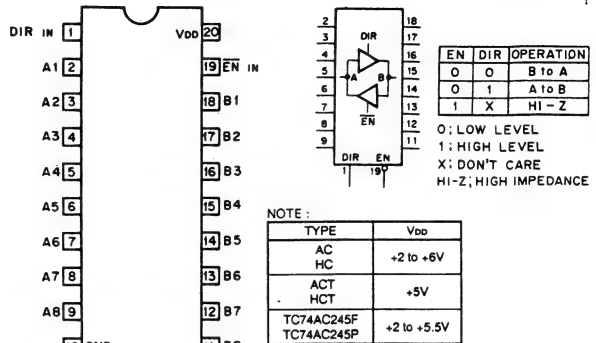
TYPE	V _{DD}
74AC	+3.3 to +5V
74ACT	+5V
74HC	+2 to +6V
TC74AC174	+2 to +5.5V

74AC245PC (NS)

74ACT245PC (NS)

SN74HC245AN (TI)

SN74HCT245AN (TI)

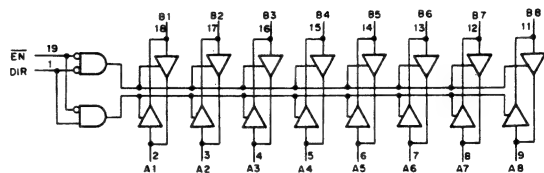
C-MOS BILATERAL BUS TRANSCEIVERS WITH 3-STATE OUTPUTS
- TOP VIEW -

EN	DIR	OPERATION
0	0	B to A
0	1	A to B
1	X	HI-Z

0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE
HI-Z: HIGH IMPEDANCE

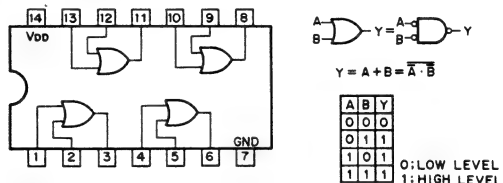
NOTE:

TYPE	V _{DD}
AC HC	+2 to +6V
ACT HCT	+5V
TC74AC245F TC74AC245P	+2 to +5.5V



74AC32PC (NS)

SN74HC32AN (TI)

C-MOS QUAD 2-INPUT OR GATES
- TOP VIEW -

$$Y = A + B = \overline{A} \cdot \overline{B}$$

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	1

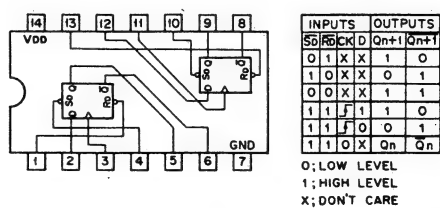
0: LOW LEVEL
1: HIGH LEVEL

NOTE:

TYPE	V _{DD}
TC74AC32 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

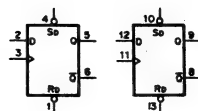
74AC74PC (NS)

SN74HC74AN (TI)

C-MOS DUAL D-TYPE FLIP-FLOP WITH DIRECT SET/RESET
- TOP VIEW -

INPUTS				OUTPUTS			
5S	RD	CK	D	Qn+1	Qn	Qn+1	Qn
0	1	X	X	1	0		
1	0	X	X	0	1		
0	0	X	X	1	1		
1	1	1	1	1	0		
1	1	0	0	0	1		
1	1	0	X	Qn	Qn		

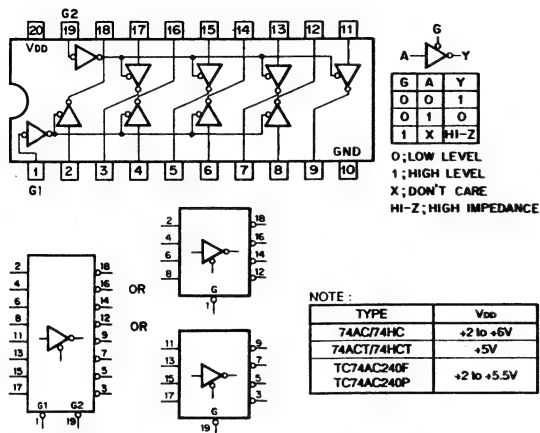
0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE



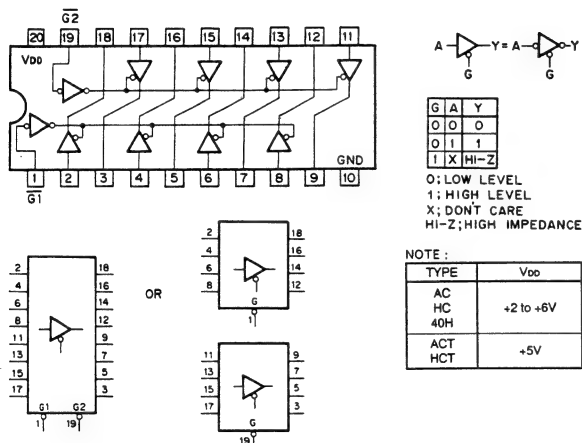
NOTE:

TYPE	V _{DD}
TC74HCT74AF	+5V
TC74AC74 TYPE	+2 to +5.5V
74ACT74 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

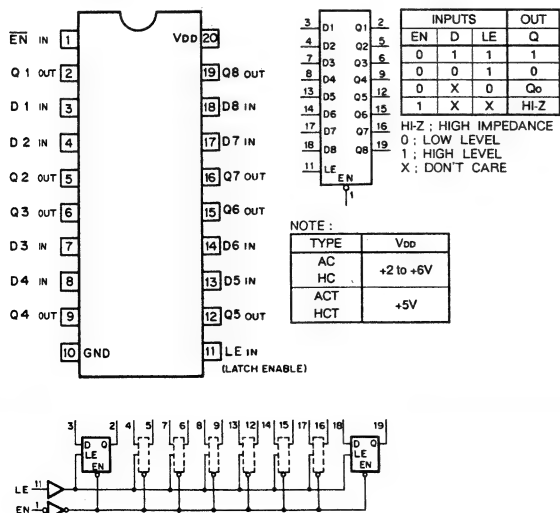
74ACT240SJ (NS) FLAT PACKAGE
 SN74HC240AN (TI)
 SN74HCT240AN (TI)
 C-MOS 3-STATE INVERTER/LINE DRIVER
 - TOP VIEW -



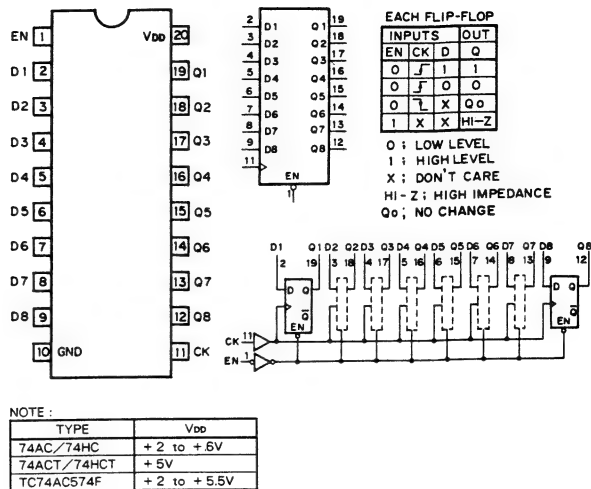
74ACT244PC (NS)
 SN74HC244AN (TI)
 SN74HCT244AN (TI)
 C-MOS BUS BUFFER WITH 3-STATE OUTPUTS
 - TOP VIEW -



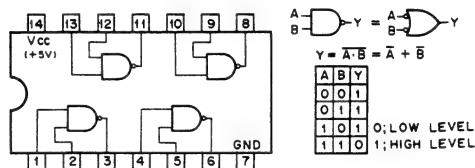
74ACT373PC (NS)
 C-MOS 3-STATE OUTPUTS OCTAL LATCHES
 - TOP VIEW -



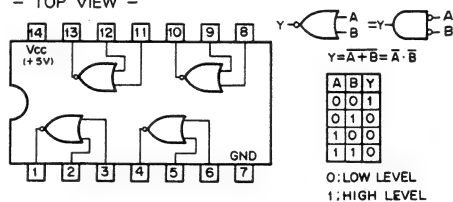
74ACT574SJ (NS) FLAT PACKAGE
 SN74HC574AN (TI)
 SN74HC574ANS (TI) FLAT PACKAGE
 SN74HCT574N (TI)
 C-MOS 3-STATE D-TYPE EDGE-TRIGGERED FLIP-FLOP
 - TOP VIEW -



74F00PC (NS)
 SN74ALS00AN (TI)
 TTL 2-INPUT POSITIVE-NAND GATE
 - TOP VIEW -

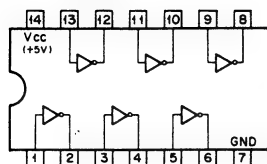


74F02PC (NS)
 TTL 2-INPUT POSITIVE-NOR GATE
 - TOP VIEW -



74F04PC (NS)
SN74ALS04BN (TI)

TTL INVERTER
- TOP VIEW -



$$A \rightarrow Y = A \rightarrow Y$$

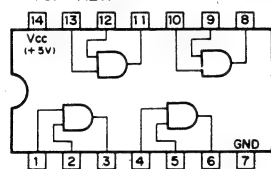
$$Y = \bar{A}$$

A	Y
0	1
1	0

0: LOW LEVEL
1: HIGH LEVEL

74F08PC (NS)
SN74ALS08N (TI)

TTL 2-INPUT POSITIVE-AND GATE
- TOP VIEW -



$$A \text{ AND } B \rightarrow Y = A \cdot B$$

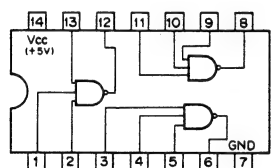
$$Y = A \cdot B = \overline{\overline{A} + \overline{B}}$$

A	B	Y
0	0	0
0	1	0
1	0	0
1	1	1

0: LOW LEVEL
1: HIGH LEVEL

74F10PC (NS)

TTL 3-INPUT POSITIVE NAND GATE
- TOP VIEW -



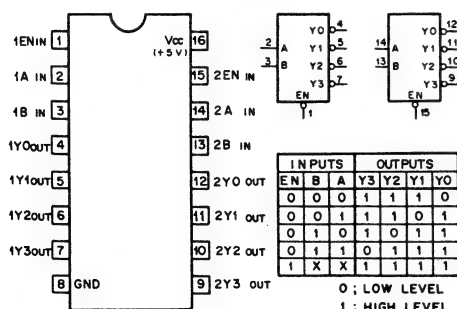
$$A \text{ NAND } B \text{ NAND } C \rightarrow Y = \overline{A \cdot B \cdot C}$$

A	B	C	Y
0	0	0	1
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	0

0: LOW LEVEL
1: HIGH LEVEL

74F139PC (NS)

TTL 2-TO-4-LINE DECODER/DEMULPLEXER
- TOP VIEW -

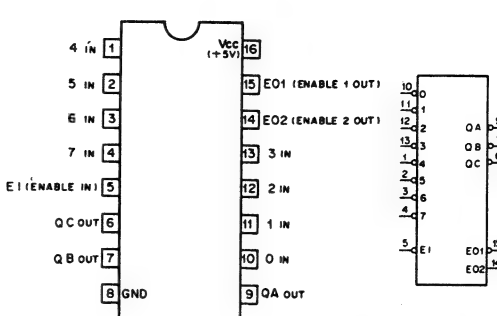


INPUTS			OUTPUTS			
EN	B	A	Y3	Y2	Y1	Y0
0	0	0	1	1	1	0
0	0	1	1	1	0	1
0	1	0	1	0	1	1
0	1	1	0	1	1	1
1	X	X	1	1	1	1

0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE

74F148PC (NS)

TTL 8-TO-3-LINE PRIORITY ENCODER
- TOP VIEW -



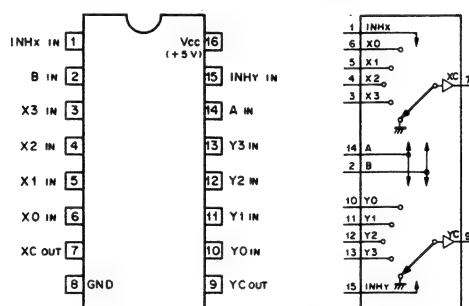
INPUTS								OUTPUTS				
E1	7	6	5	4	3	2	1	0	QC	QB	QA	E01
1	X	X	X	X	X	X	X	X	1	1	1	1
0	1	1	1	1	1	1	1	1	1	1	1	0
0	1	1	1	1	1	1	1	0	1	1	1	0
0	1	1	1	1	1	1	0	X	1	1	0	1
0	1	1	1	1	1	0	X	X	1	0	1	1
0	1	1	1	1	0	X	X	X	1	0	0	1
0	1	1	1	0	X	X	X	X	0	1	1	1
0	1	0	X	X	X	X	X	X	0	0	1	1
0	0	X	X	X	X	X	X	X	0	0	0	1

0: LOW LEVEL 1: HIGH LEVEL X: DON'T CARE

74F153PC (NS)

SN74ALS153N (TI)

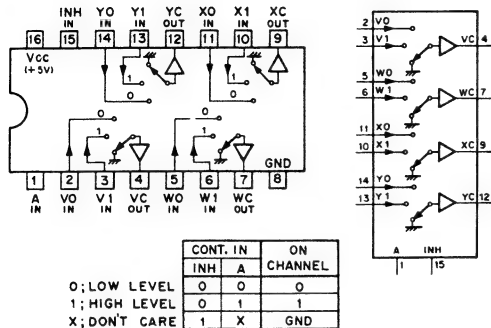
TTL 4-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER
- TOP VIEW -



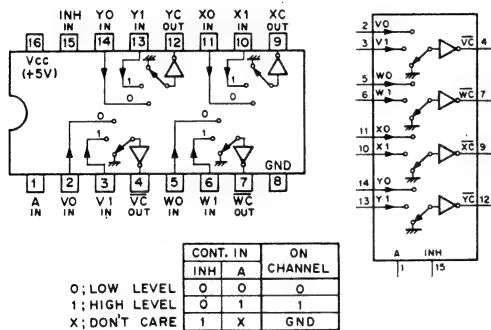
CONTROL IN			ON CHANNEL
INH	B	A	
0	0	0	0
0	0	1	1
0	1	0	2
0	1	1	3
1	X	X	GND

0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE

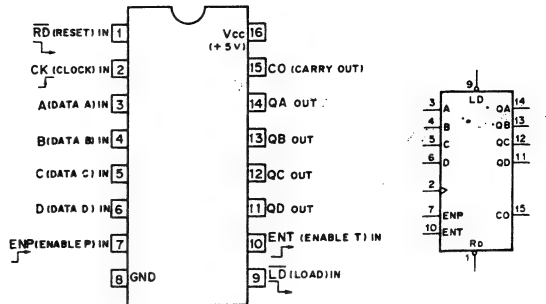
74F157APC (NS)
SN74ALS157AN (TI)
TTL 2-LINE-TO-1-LINE DATA SELECTOR/MULTIPLEXER
- TOP VIEW -



74F158APC (NS)
SN74ALS158N (TI)
TTL 2-LINE-TO-1-LINE INVERTED DATA SELECTOR/MULTIPLEXER
- TOP VIEW -



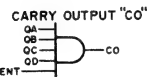
74F163APC (NS)
SN74ALS163BN (TI)
TTL PRESETTABLE SYNCHRONOUS 4-BIT BINARY COUNTER
- TOP VIEW -



MODE SELECTION				MODE
RD	LD	ENP	ENT	
0	X	X	X	RESET (SYNCHRONOUS)
1	0	X	X	PRESET (SYNCHRONOUS)
1	1	0	X	NO COUNT
1	1	X	0	NO COUNT
1	1	1	1	COUNT

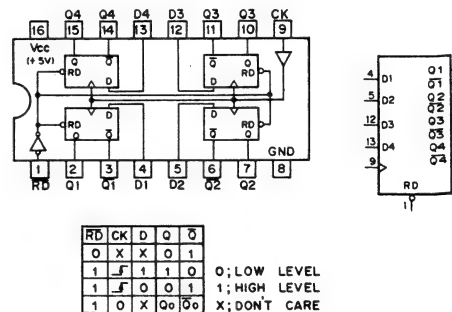
COUNT	OUTPUTS			
	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE



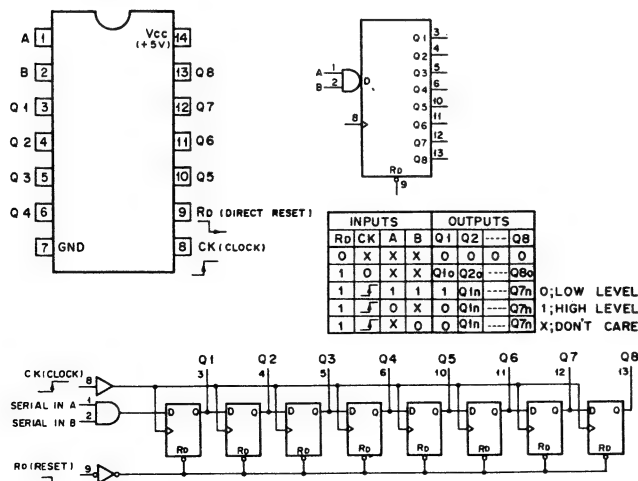
CO IS HIGH WHEN ENT INPUT IS HIGH AND COUNT IS "15".

74F175PC (NS)
SN74ALS175N (TI)
TTL D-TYPE FLIP-FLOP WITH CLEAR
- TOP VIEW -

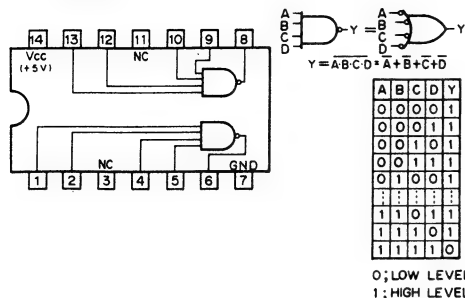


RD	CK	D	Q	Q	Q	Q
0	X	X	0	1		
1	1	1	1	0		
1	0	X	0	0	1	
1	0	X	0	0	0	

74F164PC (NS)
SN74ALS164N (TI)
TTL 8-BIT PARALLEL-OUT SERIAL SHIFT REGISTER
- TOP VIEW -

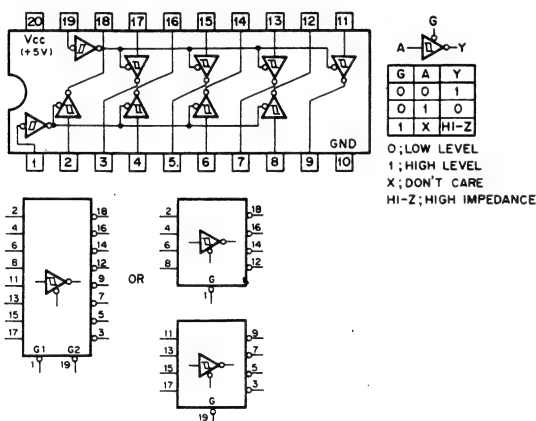


74F20PC (NS)

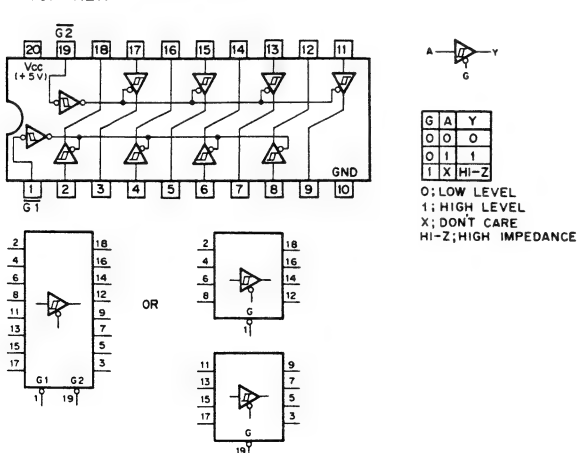
TTL 4-INPUT POSITIVE NAND GATE
- TOP VIEW -

74F240PC (NS)

SN74ALS240AN (TI)

TTL 3-STATE SCHMITT TRIGGER INVERTER/LINE DRIVER
- TOP VIEW -

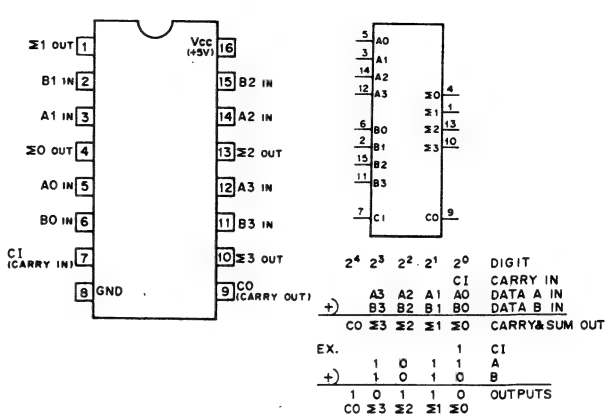
74F244PC (NS)

TTL 3-STATE SCHMITT TRIGGER BUFFER/DRIVER
- TOP VIEW -

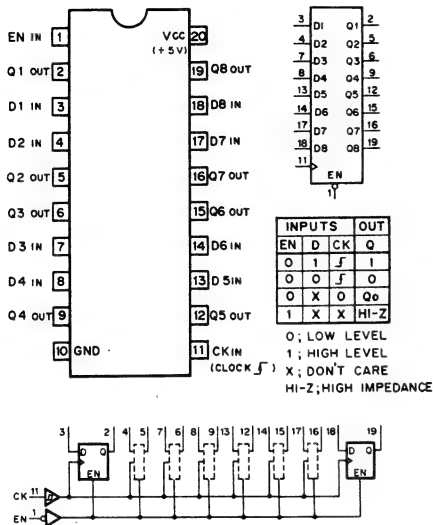
74F283PC (NS)

74F283SJ (NS)

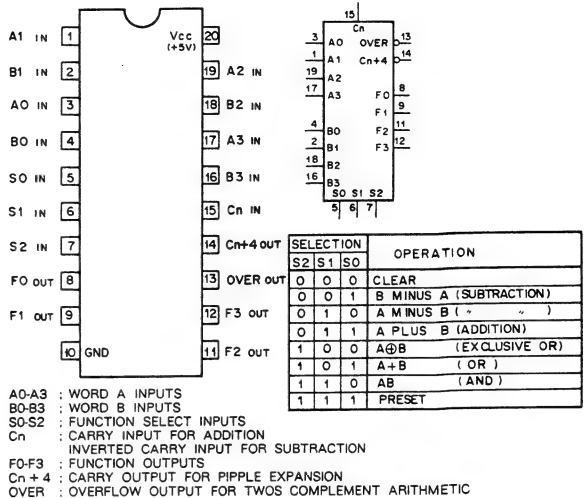
SN74LS283N (TI)

TTL 4-BIT BINARY FULL ADDER
- TOP VIEW -

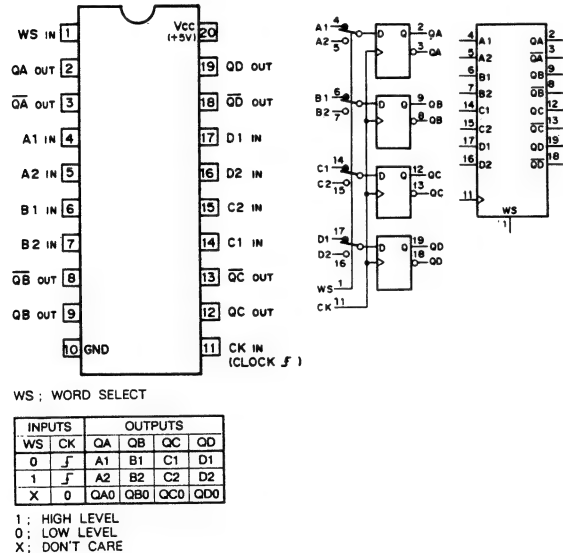
74F374PC (NS)
SN74ALS374AN (TI)
TTL 3-STATE OCTAL D-TYPE FLIP-FLOP
- TOP VIEW -



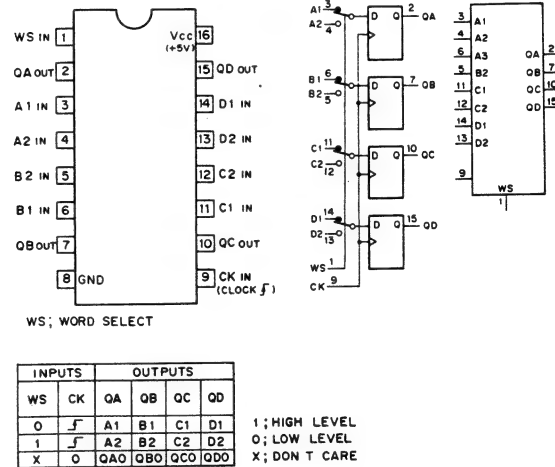
74F382PC (NS)
TTL ARITHMETIC LOGIC UNIT
- TOP VIEW -



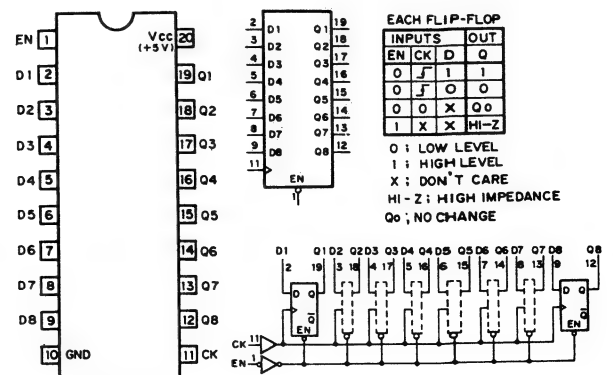
74F398PC (NS)
TTL QUAD 2-INPUT MULTIPLEXERS WITH STRAGE
- TOP VIEW -



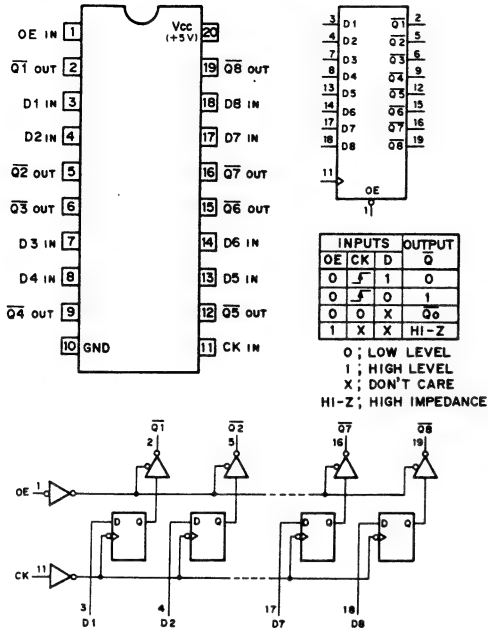
74F399PC (NS)
TTL QUAD 2-INPUT MULTIPLEXERS WITH STORAGE
- TOP VIEW -



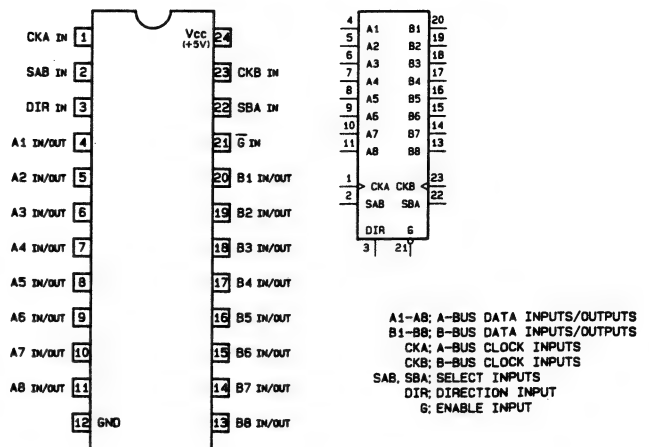
74F574PC (NS)
SN74ALS574BN (TI)
TTL 3-STATE D-TYPE EDGE-TRIGGERED FLIP-FLOP
- TOP VIEW -



74F534PC (NS)

TTL D-TYPE EDGE-TRIGGERED FLIP-FLOPS WITH 3-STATE OUTPUTS
- TOP VIEW -

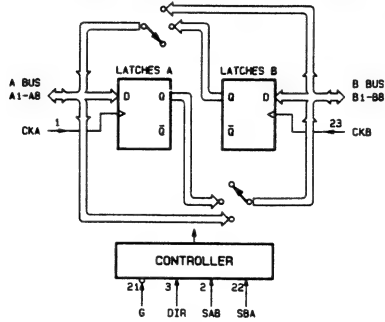
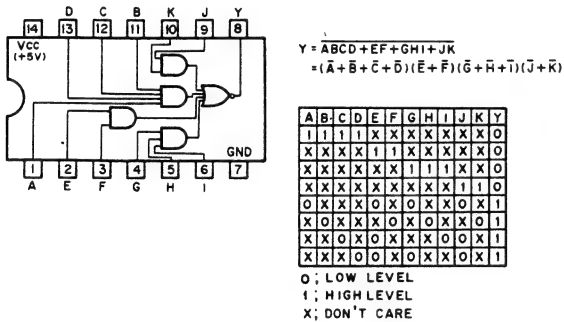
74F646PC (NS)

TTL BUS TRANSCEIVER/REGISTER WITH 3-STATE OUTPUTS
- TOP VIEW -

G	DIR	CKA	CKB	SAB	SBA	A1-A8	B1-B8	FUNCTION
X	X	1	X	X	X	INPUT	UNDEFINED	STORE A DATA
X	X	X	1	X	X	UNDEFINED	INPUT	STORE B DATA
1	X	1	1	X	X	INPUT	INPUT	STORE A & B DATA
1	X	10r0	10r0	X	X	INPUT	INPUT	HOLD DATA
0	0	X	X	X	0	OUTPUT	INPUT	TRANSFER B DATA TO A BUS
0	0	X	10r0	X	1	OUTPUT	INPUT	TRANSFER STORED B DATA TO A BUS
0	1	X	X	0	X	INPUT	OUTPUT	TRANSFER A DATA TO B BUS
0	1	10r0	X	1	X	INPUT	OUTPUT	TRANSFER STORED A DATA TO B BUS

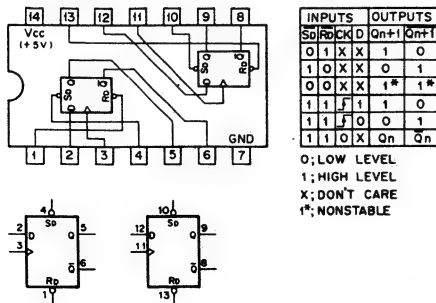
0: LOW LEVEL 1: HIGH LEVEL X: DON'T CARE

74F64PC (NS)

4-2-3-2 INPUT POSITIVE AND-OR-INVERT GATES
- TOP VIEW -

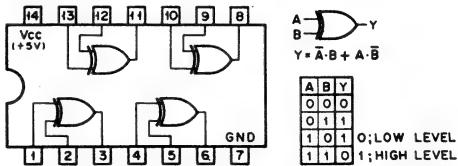
74F74PC (NS)

SN74ALS74AN (TI)

TTL D-TYPE FLIP FLOP WITH DIRECT SET/RESET
- TOP VIEW -

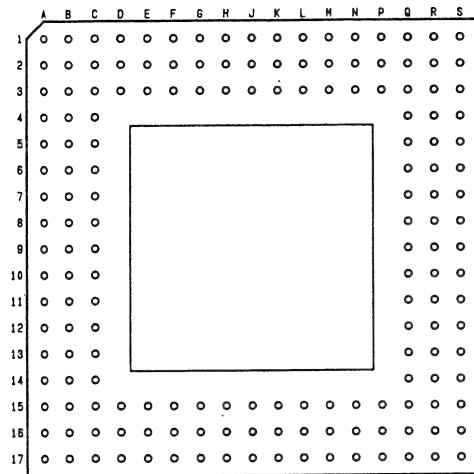
74F86PC (NS)

SN74ALS86N (TI)

TTL EXCLUSIVE OR GATE
- TOP VIEW -

A80486DX-33 (INTEL)

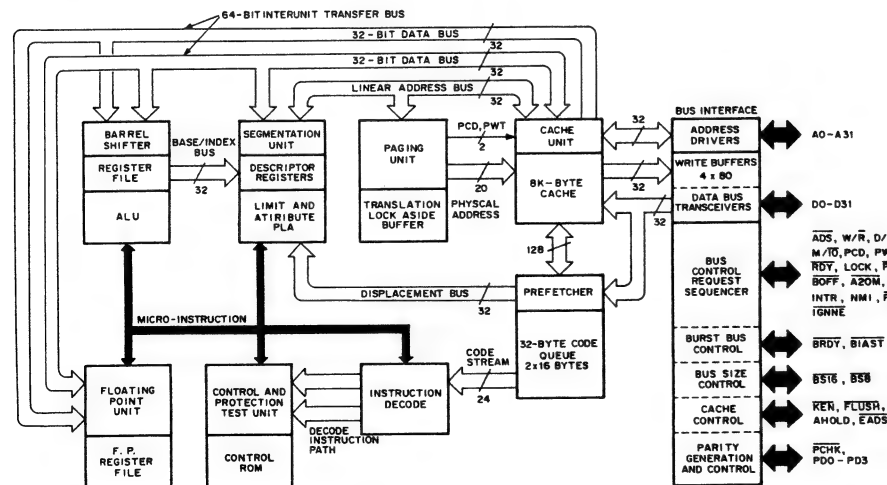
C-MOS 32-BIT MICROPROCESSOR
- BOTTOM VIEW -



INPUT
A20M : ADDRESS BIT 20 MASK
AHOLD : ADDRESS HOLD REQUEST
BOFF : BACKOFF
BRDY : BURST READY
BS16 : BUS SIZE 16
BS8 : BUS SIZE 8
BUSY : COPROCESSOR BUSY
CLK : CLOCK
EADS : VALID EXTERNAL ADDRESS
FLUSH : CACHE FLUSH
HOLD : BUS HOLD REQUEST
IGNNE : IGNORE NUMERIC ERROR
INTR : MASKABLE INTERRUPT REQUEST
KEN : CACHE ENABLE
NMI : NON-MASKABLE INTERRUPT REQUEST
RDY : NON-BURST READY
RESET : RESET

OUTPUT
A2, A3 : ADDRESS BUS
ADS : ADDRESS STATUS
BE0 - BE3 : BYTE ENABLES
BLAST : BURST LAST INDICATION
BREQ : BUS REQUEST
D/C : DATA/CONTROL INDICATION
FERR : FLOATING POINT ERROR
HLDA : BUS HOLD ACKNOWLEDGE
LOCK : BUS LOCK INDICATION
M/I/O : MEMORY/INPUT-OUTPUT INDICATION
PCD : PAGE CACHE DISABLE
PCHK : PARITY STATUS CHECK
PLOCK : PSEUDOLock INDICATION
PWT : PAGE WRITE-THROUGH
W/R : WRITE/READ INDICATION

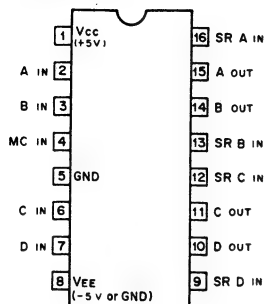
INPUT/OUTPUT
A4 - A31 : ADDRESS BUS
D0 - D31 : DATA BUS
DP0 - DP3 : DATA PARITY



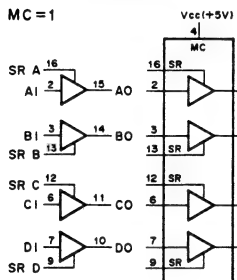
(V_{DD} = +5V)

PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL
A1	I/O	D20	C9	I/O	D30	J15	O	BE2	Q10	I/O	A13
A2	I/O	D22	C10	-	NC	J16	O	BE1	Q11	I/O	A9
A3	-	NC	C11	-	NC	J17	O	PCD	Q12	I/O	A5
A4	I/O	D23	C12	-	NC	K1	-	GND	Q13	I/O	A7
A5	I/O	DP3	C13	-	NC	K2	-	V _{DD}	Q14	O	A2
A6	I/O	D24	C14	O	FERR	K3	I/O	D14	Q15	O	BREQ
A7	-	GND	C15	I	FLUSH	K15	O	BE0	Q16	O	PLOCK
A8	I/O	D29	C16	I	RESET	K16	-	V _{DD}	Q17	O	PCHK
A9	-	GND	C17	I	BS16	K17	-	GND	R1	I/O	A28
A10	-	NC	D1	I/O	D9	L1	-	GND	R2	I/O	A25
A11	-	GND	D2	I/O	D13	L2	I/O	D6	R3	-	V _{DD}
A12	-	NC	D3	I/O	D17	L3	I/O	D7	R4	-	GND
A13	-	NC	D15	I	A20M	L15	O	PWT	R5	I/O	A18
A14	-	NC	D16	I	BS8	L16	-	V _{DD}	R6	-	V _{DD}
A15	I	IGNNE	D17	I	BOFF	L17	-	GND	R7	I/O	A15
A16	I	INTR	E1	-	GND	M1	-	GND	R8	-	V _{DD}
A17	I	AHOLD	E2	-	V _{DD}	M2	-	V _{DD}	R9	-	V _{DD}
B1	I/O	D19	E3	I/O	D10	M3	I/O	D4	R10	-	V _{DD}
B2	I/O	D21	E15	I	HOLD	M15	O	D/C	R11	-	V _{DD}
B3	-	GND	E16	-	V _{DD}	M16	-	V _{DD}	R12	I/O	A11
B4	-	GND	E17	-	GND	M17	-	GND	R13	I/O	A8
B5	-	GND	F1	I/O	DP1	N1	I/O	D2	R14	-	V _{DD}
B6	I/O	D25	F2	I/O	D8	N2	I/O	D1	R15	O	A3
B7	-	V _{DD}	F3	I/O	D15	N3	I/O	DP0	R16	O	BLAST
B8	I/O	D31	F15	I	KEN	N15	O	LOCK	R17	-	NC
B9	-	V _{DD}	F16	I	RDY	N16	O	M/I/O	S1	I/O	A27
B10	-	NC	F17	O	BE3	N17	O	W/R	S2	I/O	A26
B11	-	V _{DD}	G1	-	GND	P1	I/O	D0	S3	I/O	A23
B12	-	NC	G2	-	V _{DD}	P2	I/O	A29	S4	-	NC
B13	-	NC	G3	I/O	D12	P3	I/O	A30	S5	I/O	A14
B14	-	NC	G15	-	NC	P15	O	HLDA	S6	-	GND
B15	I	NMI	G16	-	V _{DD}	P16	-	V _{DD}	S7	I/O	A12
B16	-	NC	G17	-	GND	P17	-	GND	S8	-	GND
B17	I	EADS	H1	-	GND	Q1	I/O	A31	S9	-	GND
C1	I/O	D11	H2	I/O	D3	Q2	I/O	GND	S10	-	GND
C2	I/O	D18	H3	I/O	DP2	Q3	I/O	A17	S11	-	GND
C3	I	CLK	H15	I	BRDY	Q4	I/O	A19	S12	-	GND
C4	-	V _{DD}	H16	-	V _{DD}	Q5	I/O	A21	S13	I/O	A10
C5	-	V _{DD}	H17	-	GND	Q6	I/O	A24	S14	-	GND
C6	I/O	D27	J1	-	V _{DD}	Q7	I/O	A22	S15	I/O	A6
C7	I/O	D26	J2	I/O	D5	Q8	I/O	A20	S16	I/O	A4
C8	I/O	D28	J3	I/O	D16	Q9	I/O	A16	S17	O	ADS

AM26LS30PC (ADVANCED MICRO DEVICES)

LINE DRIVER
- TOP VIEW -MC: MODE CONTROL
SR: SLEW RATE CONTROL

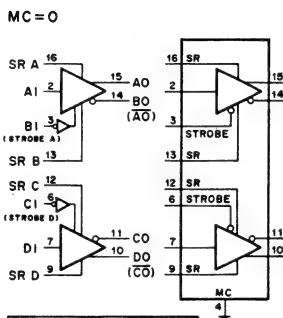
MC=1



INPUTS	OUTPUTS
MC A TO D	A TO D
1 0 0 0	0
1 1 1 1	1

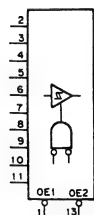
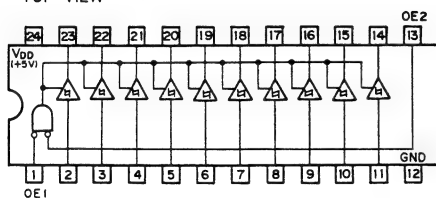
0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE
HI-Z: HIGH IMPEDANCE

MC=0



INPUTS	OUTPUTS
MC STROBE A & D	A & D B & C
0 0 0 0	0 0 1 1
0 0 0 1	1 1 0 0
0 1 X X	HI-Z HI-Z

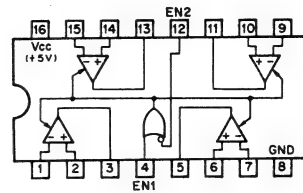
AM29C827APC (AMD)

C-MOS 3-STATE 10-BIT BUS DRIVER
- TOP VIEW -

OE1	OE2	A	Y
0	0	0	0
0	0	1	1
1	X	X	HI-Z
X	1	X	HI-Z

0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE
HI-Z: HIGH IMPEDANCE

AM26LS32ACN (TI)

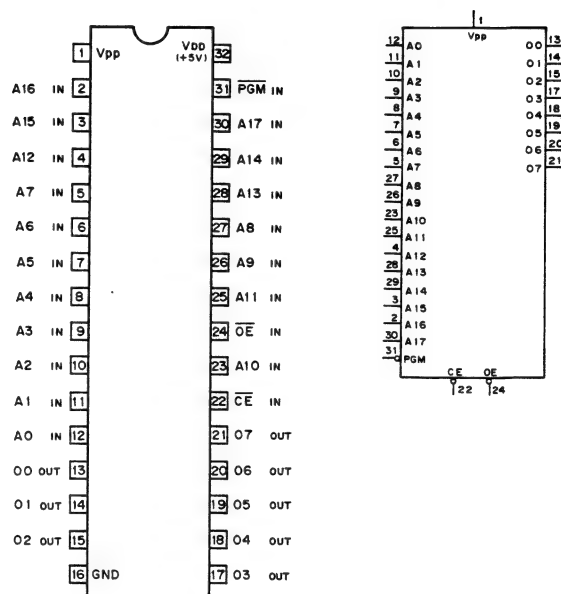
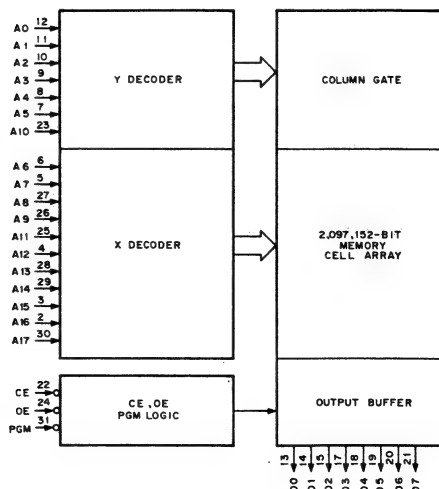
AM26LS32PC (ADVANCED MICRO DEVICES)
HIGH SPEED DIFFERENTIAL LINE RECEIVER
- TOP VIEW -

EN2	EN1	OUTPUT
0	0	ENABLE
0	1	ENABLE
1	0	HI-Z
1	1	ENABLE

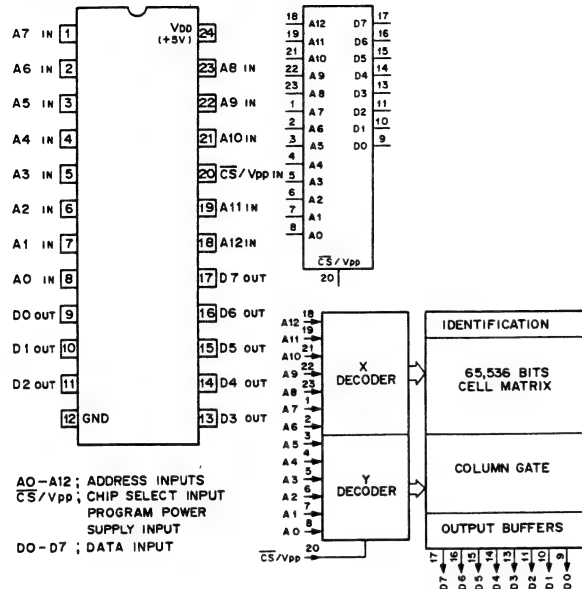
0: LOW LEVEL
1: HIGH LEVEL
HI-Z: HIGH IMPEDANCE

	SENSE	INPUT VOLT
LS32	±200mV	±7V
LS33	±500mV	±15V

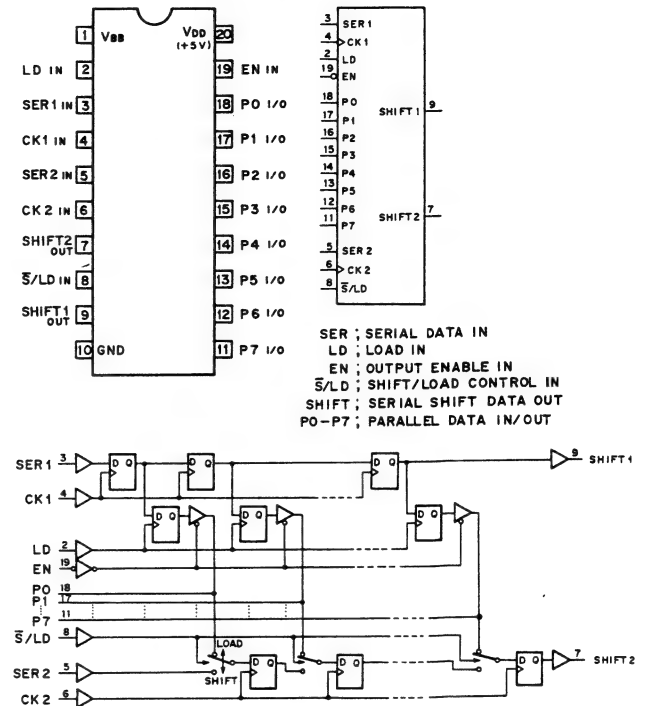
AM27C020-120DC (AMD)

C-MOS 2M (252,144x8)-BIT UV ERASABLE PROM
- TOP VIEW -A0 - A17 : ADDRESS INPUT
O0 - O7 : DATA OUTPUT
CE : CHIP ENABLE
OE : OUTPUT ENABLE
PGM : PROGRAM INPUT

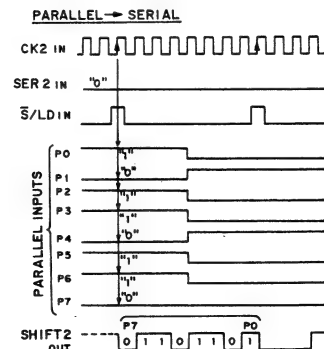
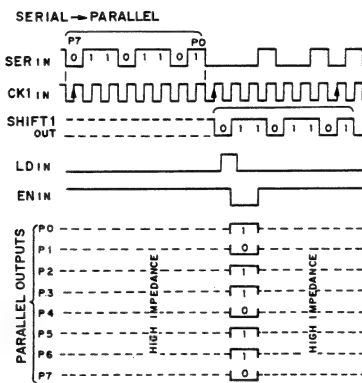
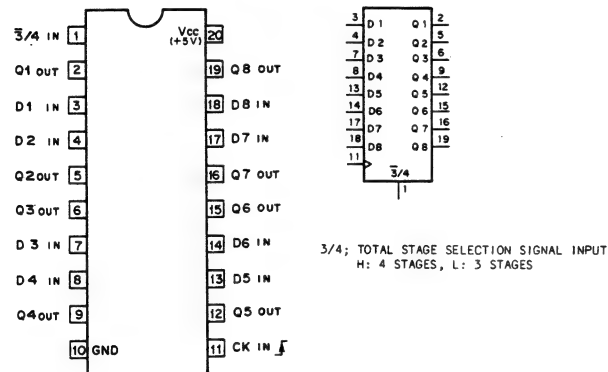
AT27HC642-55DC (ATMEL)
 AT27HC642-55PC (ATMEL)
 C-MOS 64K (8192x8)-BIT UV EPROM
 - TOP VIEW -



CX23024 (SONY)
 N-MOS 8-BIT SERIAL TO/FROM PARALLEL SHIFT REGISTER
 - TOP VIEW -

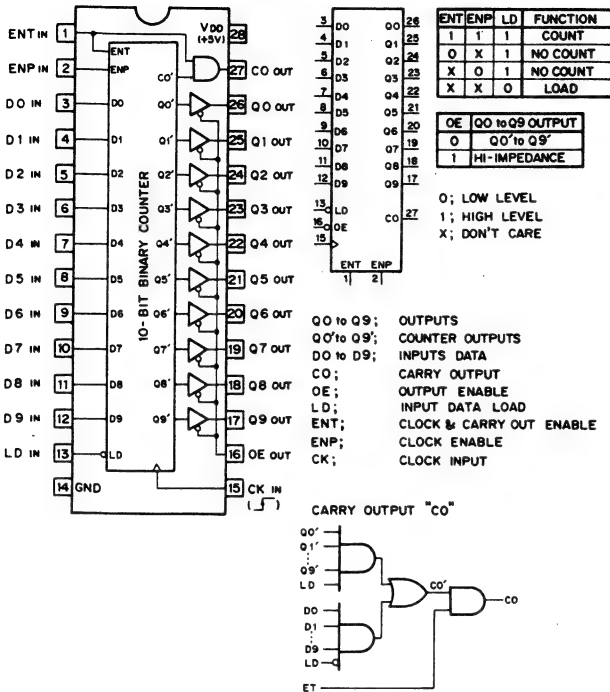


CX20160 (SONY)
 TTL OCTAL 3 OR 4 STAGE SHIFT REGISTER
 - TOP VIEW -



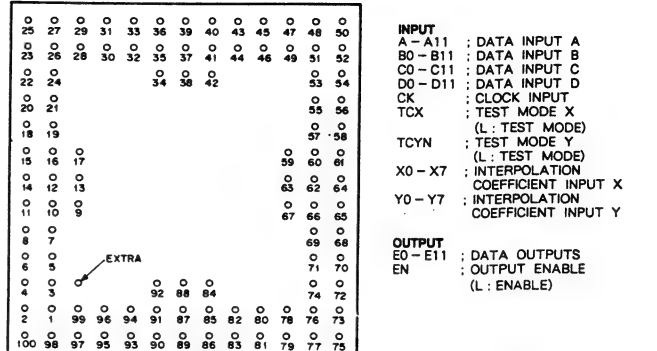
CX23043 (SONY)

N-MOS SYNCHRONOUS 10-BIT BINARY COUNTER
- TOP VIEW -



CXD8040G (SONY)

4-POINT INTERPOLATOR
- BOTTOM VIEW -

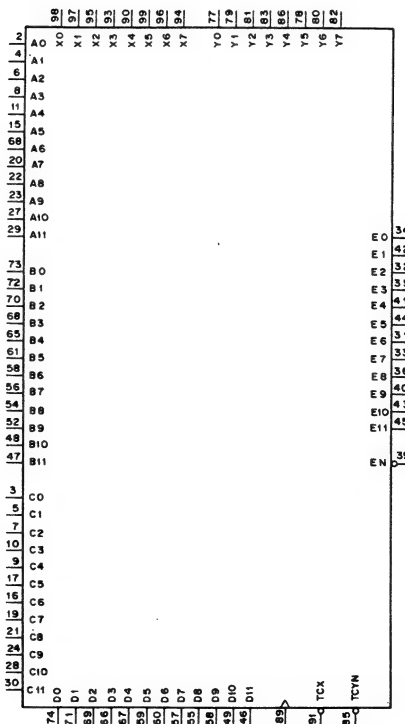
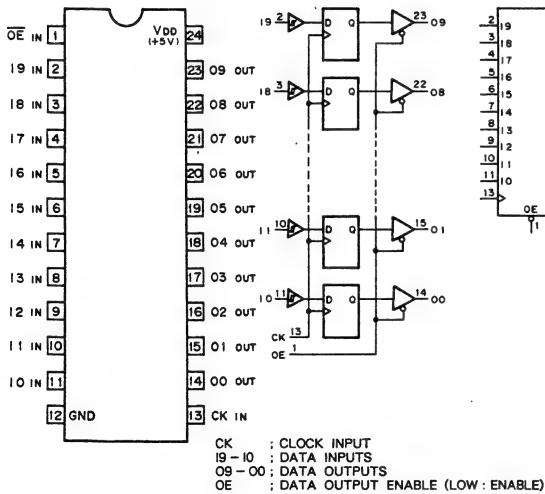


(V_{DD} = +3V to +5V)

PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL	PIN No.	I/O	SIGNAL
1	-	GND	26	-	GND	51	-	V _{DD}	76	-	V _{DD}
2	I	A0	27	I	A10	52	I	B9	77	I	Y0
3	I	C0	28	I	C10	53	I	D9	78	I	Y5
4	I	A1	29	I	A11	54	I	B8	79	I	Y1
5	I	C1	30	I	C11	55	I	D8	80	I	Y6
6	I	A2	31	O	E6	56	I	B7	81	I	Y2
7	I	C2	32	O	E2	57	I	D7	82	I	Y7
8	I	A3	33	O	E7	58	I	B6	83	I	Y3
9	I	C3	34	O	E0	59	I	D6	84	-	TS OUT
10	I	A4	35	O	E3	60	I	B5	85	I	TCYN
11	I	C4	36	O	E8	61	I	D5	86	I	Y4
12	-	V _{DD}	37	-	GND	62	-	GND	87	-	V _{DD}
13	-	GND	38	-	V _{DD}	63	-	GND	88	-	GND
14	-	GND	39	O	EN	64	-	V _{DD}	89	I	CK
15	I	A5	40	O	E9	65	I	B4	90	I	X4
16	I	C5	41	O	E4	66	I	D4	91	I	TCX
17	I	A6	42	O	E1	67	I	B3	92	-	GND
18	I	C6	43	O	E10	68	I	D3	93	I	X3
19	I	A7	44	O	E5	69	I	B2	94	I	X7
20	I	C7	45	O	E11	70	I	D2	95	I	X2
21	I	A8	46	I	D11	71	I	B1	96	I	X6
22	I	C8	47	I	B11	72	I	D1	97	I	X1
23	I	A9	48	I	B10	73	I	D0	98	I	X0
24	I	C9	49	I	D10	74	I	D0	99	I	X5
25	-	V _{DD}	50	-	GND	75	-	GND	100	-	V _{DD}

CXD8214P (SONY)

C-MOS 10-BIT LATCH
- TOP VIEW -

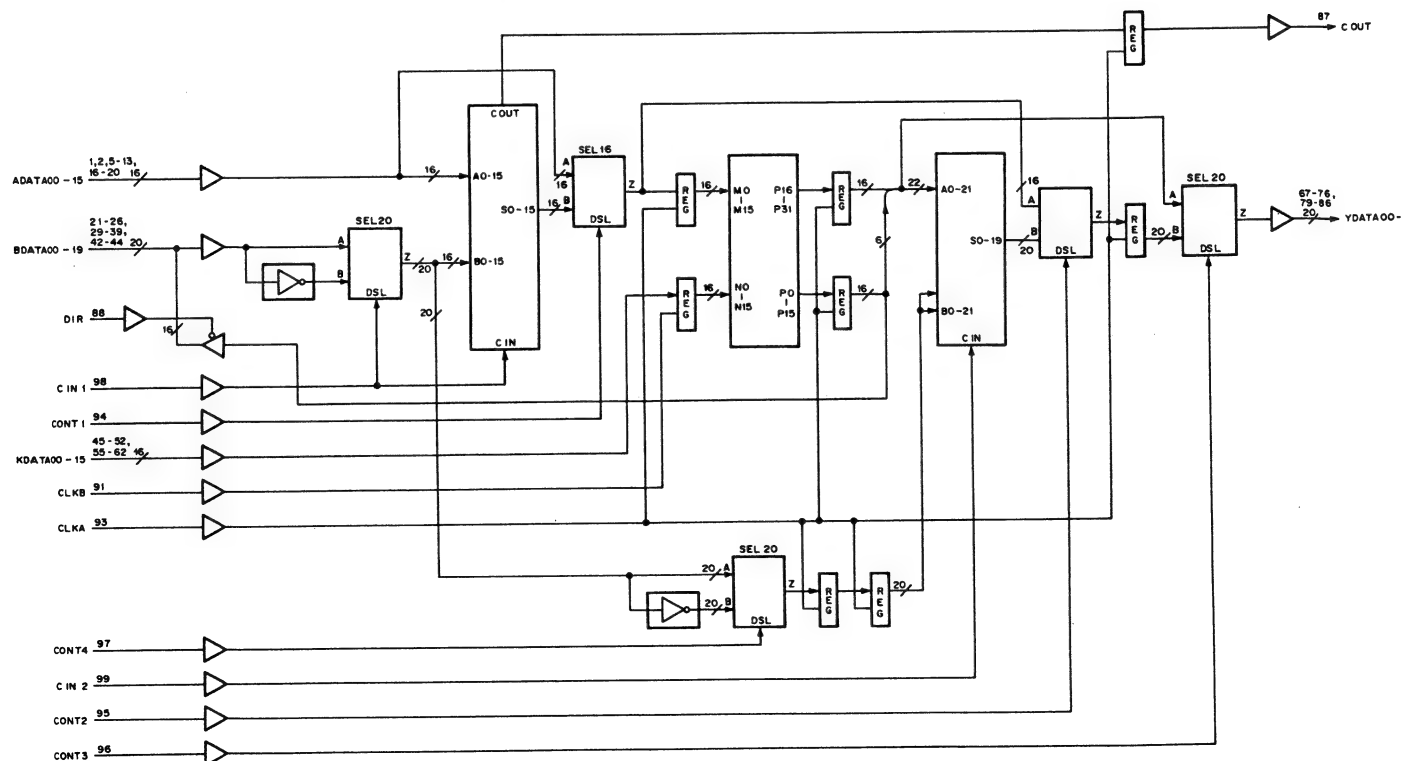


CXD8156Q (SONY)

16-BIT ADDER MULTIPLIER

- TOP VIEW -

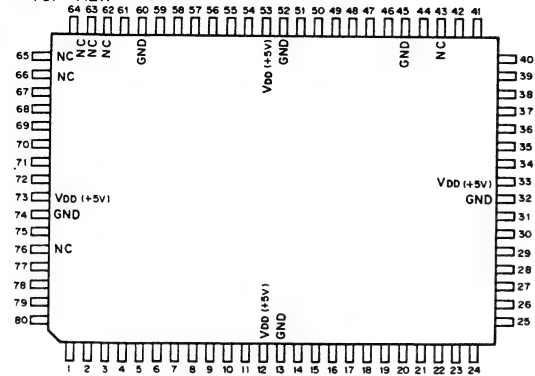
PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL
1	I	A DATA 00	26	I/O	B DATA 05	51	I	K DATA 06	76	O	Y DATA 11
2	I	A DATA 01	27	-	GND	52	I	K DATA 07	77	-	GND
3	-	V _{DD} (+5V)	28	-	V _{DD} (+5V)	53	-	V _{DD} (+5V)	78	-	V _{DD} (+5V)
4	-	GND	29	I/O	B DATA 06	54	-	GND	79	O	Y DATA 12
5	I	A DATA 02	30	I/O	B DATA 07	55	I	K DATA 08	80	O	Y DATA 13
6	I	A DATA 03	31	I/O	B DATA 08	56	I	K DATA 09	81	O	Y DATA 14
7	I	A DATA 04	32	I/O	B DATA 09	57	I	K DATA 10	82	O	Y DATA 15
8	I	A DATA 05	33	I/O	B DATA 10	58	I	K DATA 11	83	O	Y DATA 16
9	I	A DATA 06	34	I/O	B DATA 11	59	I	K DATA 12	84	O	Y DATA 17
10	I	A DATA 07	35	I/O	B DATA 12	60	I	K DATA 13	85	O	Y DATA 18
11	I	A DATA 08	36	I/O	B DATA 13	61	I	K DATA 14	86	O	Y DATA 19
12	I	A DATA 09	37	I/O	B DATA 14	62	I	K DATA 15	87	O	CARRY OUT
13	I	A DATA 10	38	I/O	B DATA 15	63	O	Y DATA 00	88	I	DIR
14	-	V _{DD} (+5V)	39	I/O	B DATA 16	64	O	Y DATA 01	89	-	V _{DD} (+5V)
15	-	GND	40	-	GND	65	-	GND	90	-	GND
16	I	A DATA 11	41	-	V _{DD} (+5V)	66	-	V _{DD} (+5V)	91	I	CLK B
17	I	A DATA 12	42	I	B DATA 17	67	O	Y DATA 02	92	-	NC
18	I	A DATA 13	43	I	B DATA 18	68	O	Y DATA 03	93	I	CLK A
19	I	A DATA 14	44	I	B DATA 19	69	O	Y DATA 04	94	I	CONT 1
20	I	A DATA 15	45	I	K DATA 00	70	O	Y DATA 05	95	I	CONT 2
21	I/O	B DATA 00	46	I	K DATA 01	71	O	Y DATA 06	96	I	CONT 3
22	I/O	B DATA 01	47	I	K DATA 02	72	O	Y DATA 07	97	I	CONT 4
23	I/O	B DATA 02	48	I	K DATA 03	73	O	Y DATA 08	98	I	CIN 1
24	I/O	B DATA 03	49	I	K DATA 04	74	O	Y DATA 09	99	I	CIN 2
25	I/O	B DATA 04	50	I	K DATA 05	75	O	Y DATA 10	100	O	TEST OUT



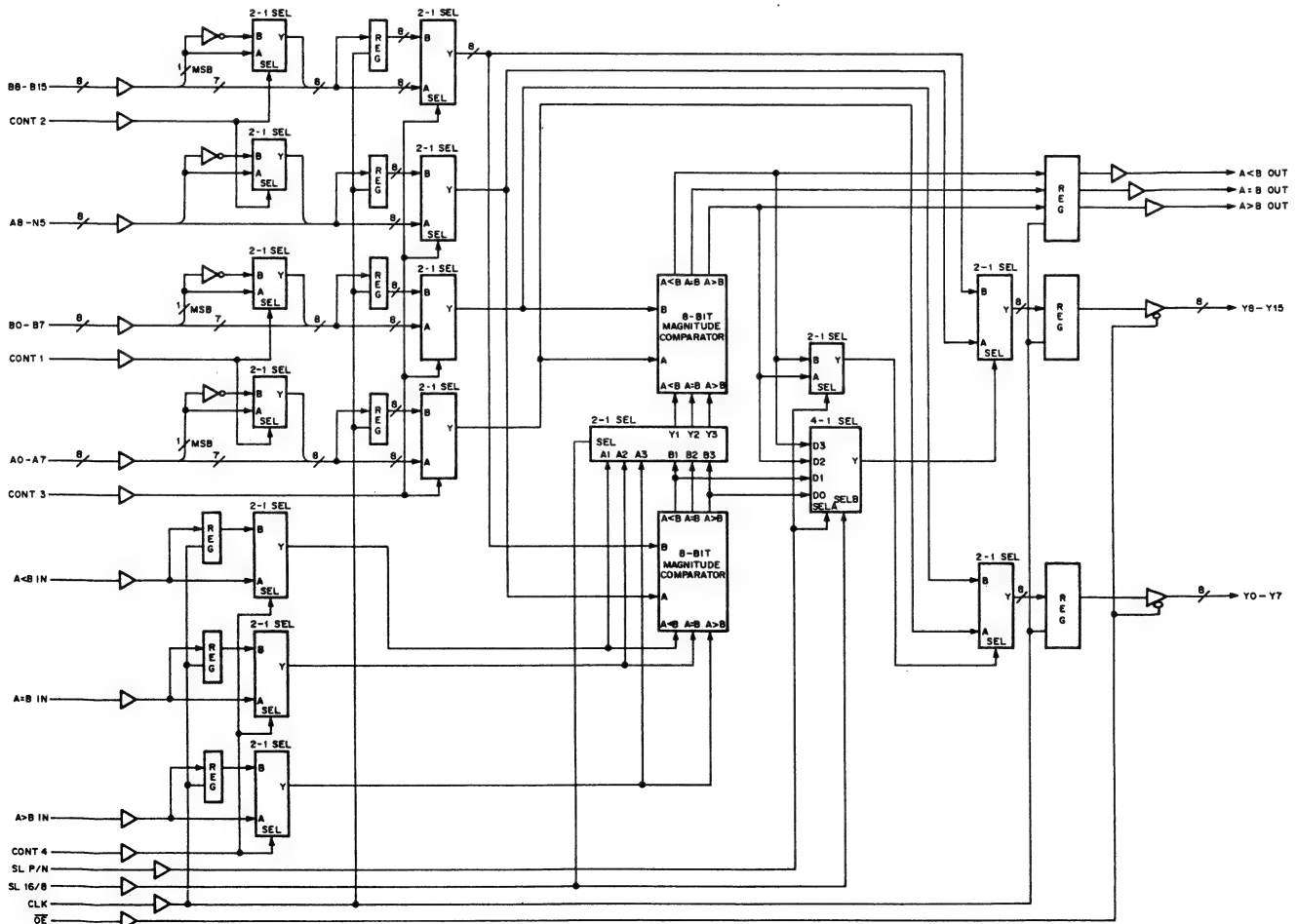
CXD8157Q (SONY)

HC-MOS 16-BIT NON ADDITIVE MIX

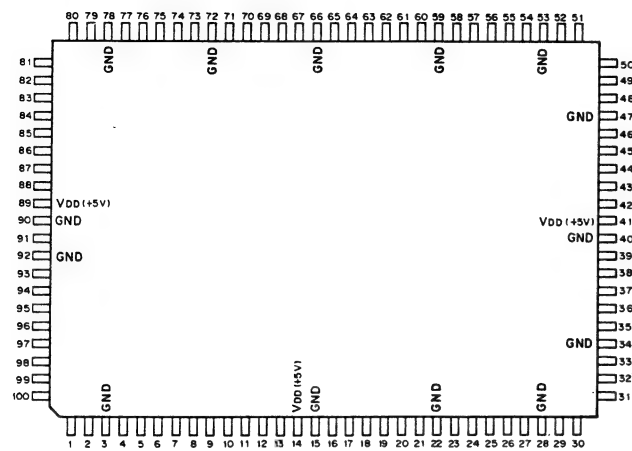
- TOP VIEW -



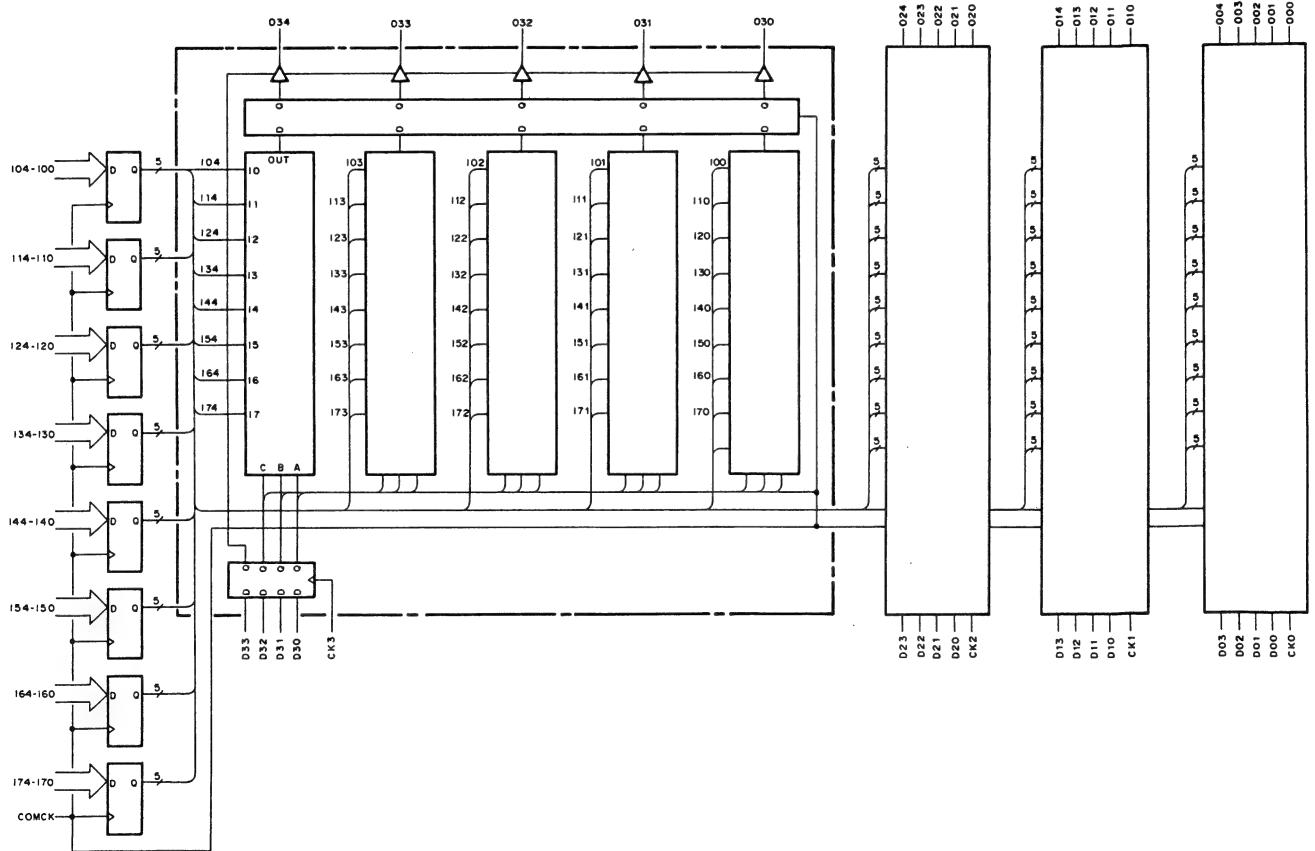
PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL
1	I	CONT 03	21	I	A DATA 15	41	O	Y DATA 14	61	I	OE
2	I	CONT 02	22	I	B DATA 00	42	O	Y DATA 13	62	-	NC
3	I	CONT 01	23	I	B DATA 01	43	-	NC	63	-	NC
4	I	A DATA 00	24	I	B DATA 02	44	O	Y DATA 12	64	-	NC
5	I	A DATA 01	25	I	B DATA 03	45	-	GND	65	-	NC
6	I	A DATA 02	26	I	B DATA 04	46	O	Y DATA 11	66	-	NC
7	I	A DATA 03	27	I	B DATA 05	47	O	Y DATA 10	67	I	SL16B
8	I	A DATA 04	28	I	B DATA 06	48	O	Y DATA 09	68	I	SLPN
9	I	A DATA 05	29	I	B DATA 07	49	O	Y DATA 08	69	O	AEBOUT
10	I	A DATA 06	30	I	B DATA 08	50	O	Y DATA 07	70	O	ALBOUT
11	I	A DATA 07	31	I	B DATA 09	51	O	Y DATA 06	71	O	AGBOUT
12	-	VDD (+5V)	32	-	GND	52	-	GND	72	O	TESTOUT
13	-	GND	33	-	VDD (+5V)	53	-	VDD (+5V)	73	-	VDD (+5V)
14	I	A DATA 08	34	I	B DATA 10	54	O	Y DATA 05	74	-	GND
15	I	A DATA 09	35	I	B DATA 11	55	O	Y DATA 04	75	I	CLK
16	I	A DATA 10	36	I	B DATA 12	56	O	Y DATA 03	76	-	NC
17	I	A DATA 11	37	I	B DATA 13	57	O	Y DATA 02	77	I	AEBIN
18	I	A DATA 12	38	I	B DATA 14	58	O	Y DATA 01	78	I	ALBIN
19	I	A DATA 13	39	I	B DATA 15	59	O	Y DATA 00	79	I	AGBIN
20	I	A DATA 14	40	O	Y DATA 15	60	-	GND	80	I	CONT 04



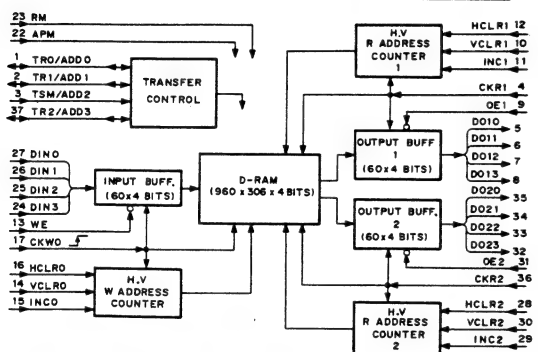
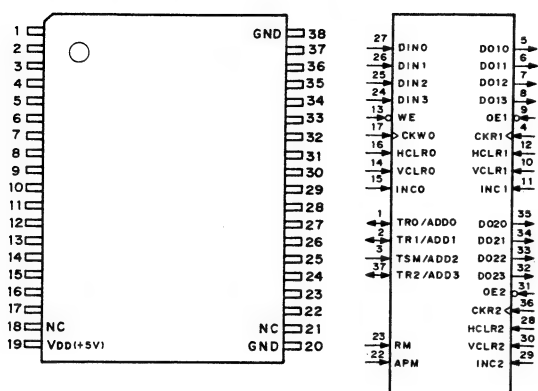
CXD8158Q (SONY)
HC-MOS 5-BIT SLICE 8x4 MATRIX SWITCH
- TOP VIEW -



PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL	PIN No.	I/O	SYMBOL
1	O	O03	26	I	I13	51	I	I33	76	O	O13
2	O	O04	27	I	I14	52	I	I34	77	O	O14
3	-	GND	28	-	GND	53	-	GND	78	-	GND
4	I	CK3	29	I	I20	54	I	I40	79	I	I60
5	I	D30	30	I	I21	55	I	I41	80	I	I61
6	I	D31	31	I	I22	56	I	I42	81	I	I62
7	I	D32	32	I	I23	57	I	I43	82	I	I63
8	I	D33	33	I	I24	58	I	I44	83	I	I64
9	O	O30	34	-	GND	59	-	GND	84	I	I70
10	O	O31	35	I	CK2	60	I	I50	85	I	I71
11	O	O32	36	I	D20	61	I	I51	86	I	I72
12	O	O33	37	I	D21	62	I	I52	87	I	I73
13	O	O34	38	I	D22	63	I	I53	88	I	I74
14	-	VDD (+5V)	39	I	D23	64	I	I54	89	-	VDD (+5V)
15	-	GND	40	-	GND	65	I	CK1	90	-	GND
16	I	I00	41	-	VDD (+5V)	66	-	GND	91	I	COMCLK
17	I	I01	42	O	O20	67	-	VDD (+5V)	92	-	GND
18	I	I02	43	O	O21	68	I	D10	93	I	CK0
19	I	I03	44	O	O22	69	I	D11	94	I	D00
20	I	I04	45	O	O23	70	I	D12	95	I	D01
21	O	TSOUT	46	O	O24	71	I	D13	96	I	D02
22	-	GND	47	-	GND	72	-	VSS	97	I	D03
23	I	I10	48	I	I30	73	O	O10	98	O	O00
24	I	I11	49	I	I31	74	O	O11	99	O	O01
25	I	I12	50	I	I32	75	O	O12	100	O	O02



CXX1206AM (SONY) FLAT PACKAGE
CXX1206M (SONY) FLAT PACKAGE
C-MOS VIDEO FIELD MEMORY (960-COLUMNx306-ROWx4-BIT)
- TOP VIEW -

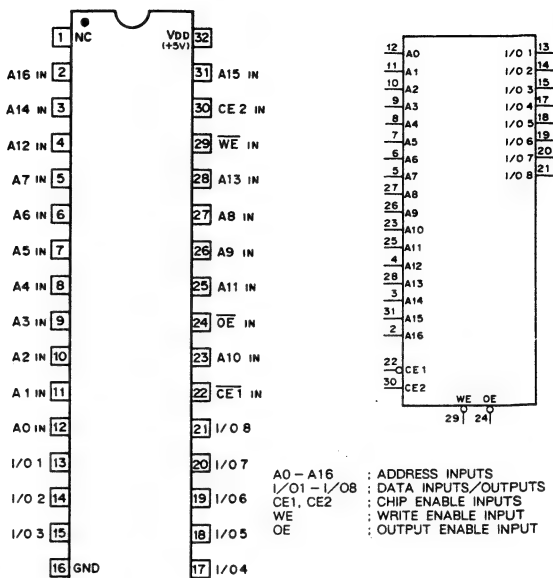


PIN	SIGNAL	DESCRIPTION
1	TR0/ADD0	W PORT 0 TRANSFER SYNC I/O, ADDRESS 0 INPUT
2	TR1/ADD1	R PORT 1 TRANSFER SYNC I/O, ADDRESS 1 INPUT
3	TRM/ADD2	TRANSFER SYNCHRONOUS MODE, ADDRESS 2 INPUT
4	CSK1	R PORT 1 SHIFT SIGNAL INPUT
5	DO10	R PORT 1 DATA 0 OUTPUT
6	DO11	R PORT 1 DATA 1 OUTPUT
7	DO12	R PORT 1 DATA 2 OUTPUT
8	DO13	R PORT 1 DATA 3 OUTPUT
9	OE1	R PORT 1 OUTPUT ENABLE INPUT
10	VC1R1	R PORT 1 VERTICAL CLEAR INPUT
11	INC1	R PORT 1 LINE INCREMENT INPUT
12	HC1R1	R PORT 1 HORIZONTAL CLEAR INPUT
13	WE	W PORT 0 WRITE ENABLE INPUT
14	VC1R0	W PORT 0 VERTICAL CLEAR INPUT
15	INC0	W PORT 0 LINE INCREMENT INPUT
16	HC1R0	W PORT 0 HORIZONTAL CLEAR INPUT
17	CKW0	W PORT 0 SHIFT SIGNAL INPUT
18	NC	(no connection)
19	VDD	+5V INPUT
20	GND	GND
21	NC	(no connection)
22	APM	ADDRESS PRESET MODE INPUT
23	RM	RECURSIVE MODE ENABLE INPUT
24	DN3	W PORT 0 DATA 3 INPUT
25	DN2	W PORT 0 DATA 2 INPUT
26	DN1	W PORT 0 DATA 1 INPUT
27	DN0	W PORT 0 DATA 0 INPUT
28	HC1R2	R PORT 2 HORIZONTAL CLEAR INPUT
29	INC2	R PORT 2 LINE INCREMENT INPUT
30	VC1R2	R PORT 2 VERTICAL CLEAR INPUT
31	OE2	R PORT 2 OUTPUT ENABLE INPUT
32	DO23	R PORT 2 DATA 3 OUTPUT
33	DO22	R PORT 2 DATA 2 OUTPUT
34	DO21	R PORT 2 DATA 1 OUTPUT
35	DO20	R PORT 2 DATA 0 OUTPUT
36	CKR2	R PORT 2 SHIFT SIGNAL INPUT
37	TR2/ADD3	R PORT 2 TRANSFER SYNC I/O, ADDRESS 3 INPUT
38	GND	GND

MODE SELECTION					
CONTROL INPUTS			TS, TR/ADD		MODE
RM	APM	TSM	TR 0-2	ADD 0-3	
0	0	0	OUT- PUT	-	NON RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE OUTPUT
0	0	1	IN- PUT	-	NON RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE INPUT
0	1	-	-	IN- PUT	NON RECURSIVE MODE, ADDRESS PRESET MODE
1	0	0	OUT- PUT	-	RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE OUTPUT
1	0	1	IN- PUT	-	RECURSIVE MODE, TRANSFER SYNCHRONOUS MODE INPUT

0:LOW LEVEL 1:HIGH LEVEL

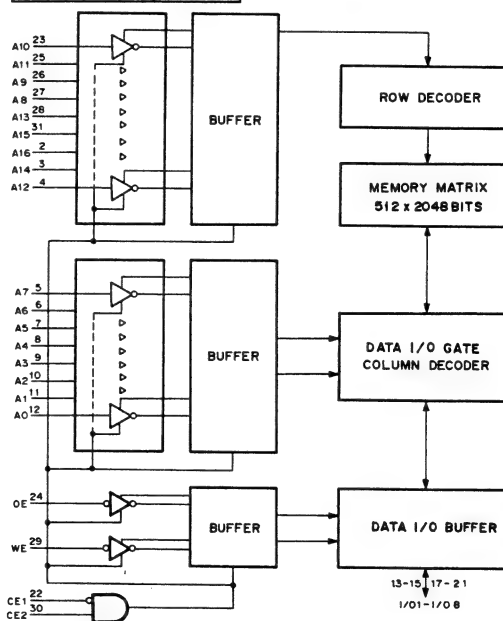
CXK581001P-70L (SONY)
C-MOS 1M (131072x8)-BIT STATIC RAM
- TOP VIEW -



A0 - A16 : ADDRESS INPUTS
I/O1 - I/O8 : DATA INPUTS/OUTPUTS
CE1, CE2 : CHIP ENABLE INPUTS
WE : WRITE ENABLE INPUT
OE : OUTPUT ENABLE INPUT

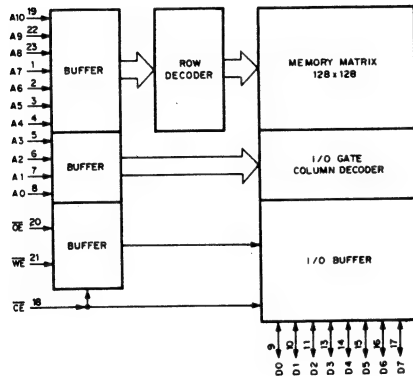
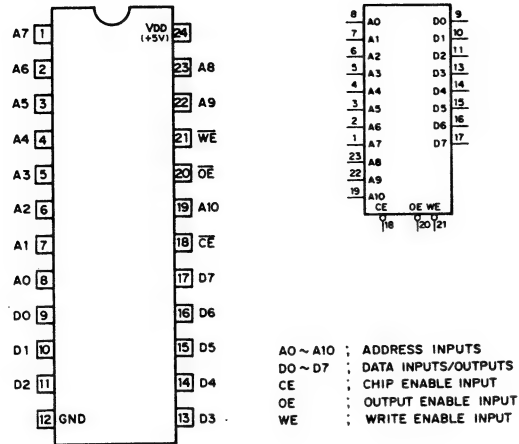
CE1	CE2	OE	WE	MODE
1	X	X	X	STANDBY
X	0	X	X	
0	1	1	1	DISABLE
0	1	0	1	READ
0	1	X	0	WRITE

0 : LOW LEVEL
1 : HIGH LEVEL
X : DON'T CARE



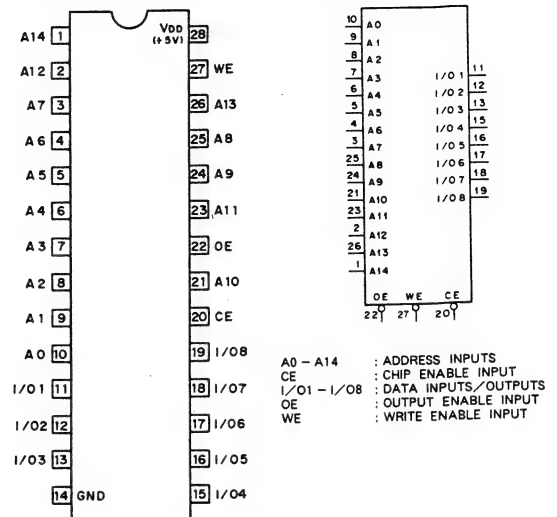
CXK5814P-35 (SONY) (ACCESS TIME = 35nS)

C-MOS 16K (2Kx8) STATIC RAM
- TOP VIEW -



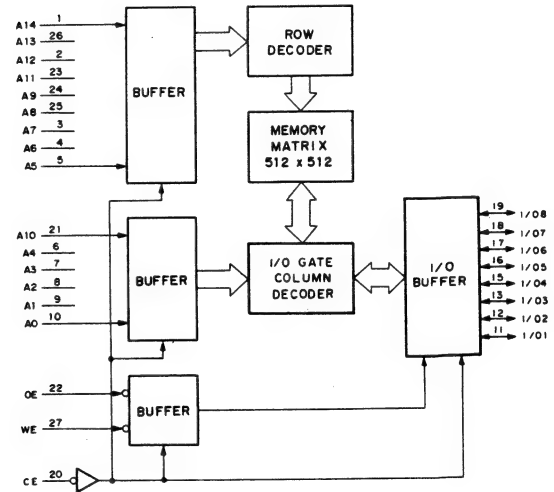
CXK58257ASP-10L

C-MOS 256K (32768x8)-BIT STATIC RAM
- TOP VIEW -

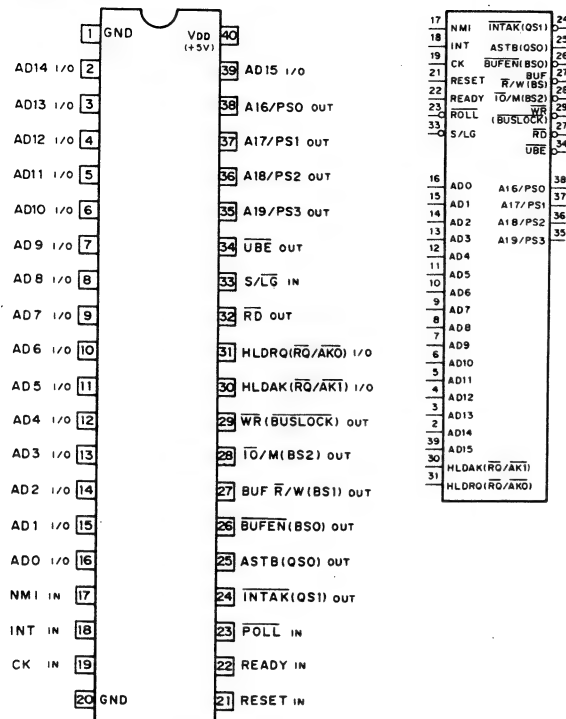


CE	OE	WE	MODE	I/O TERMINAL
1	x	x	NOT SELECT	HIGH IMPEDANCE
0	1	1	OUTPUT DISABLE	HIGH IMPEDANCE
0	0	1	READ	OUTPUT DATA
0	x	0	WRITE	INPUT DATA

0: LOW LEVEL
1: HIGH LEVEL
x: DON'T CARE



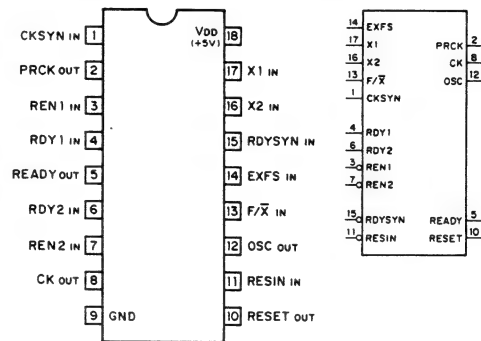
CXQ70116P-8 (SONY)

C-MOS 16-BIT MICROPROCESSOR
- TOP VIEW -

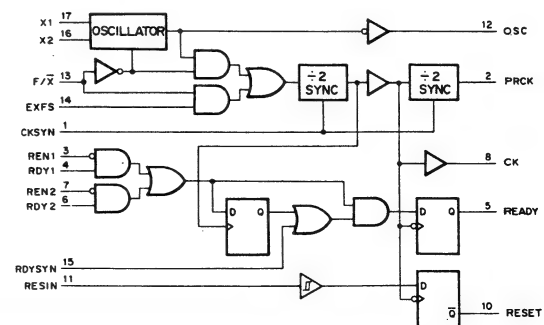
AD15-AD0 ; ADDRESS/DATA BUS
NMI ; NON-MASKABLE INTERRUPT
INT ; MASKABLE INTERRUPT
CK ; CLOCK
INTAK ; INTERRUPT ACKNOWLEDGE
ASTB ; ADDRESS STROBE
BUFEN ; BUFFER ENABLE
BUF R/W ; BUFFER READ/WRITE
IO/M ; IO MEMORY
WR ; WRITE STROBE
HLDQ ; HOLD ACKNOWLEDGE
HLDQ ; HOLD REQUEST
RD ; READ STROBE
S/LG ; SMALL/LARGE
UBE ; UPPER BYTE ENABLE
A19/PS3-A16/PS0 ; ADDRESS BUS/PROCESSOR STATUS
QS1, 0 ; QUEUE STATUS
BS2-BS0 ; BUS STATUS
BUSLOCK ; BUS LOCK
RQ/AK1, 0 ; HOLD REQUEST/ACKNOWLEDGE

PIN No.	FUNCTION
24	INTAK QS1
25	ASTB QSO
26	BUFEN BSO
27	BUF R/W BS1
28	IO/M BS2
29	WR BUSLOCK
30	HLDQ RQ/AK1
31	HLDQ RQ/AK0

CXQ71011P (SONY)

C-MOS CLOCK PULSE GENERATOR/DRIVER
- TOP VIEW -

X1, X2 ; CRYSTAL INPUT
EXFS ; EXTERNAL FREQUENCY SOURCE INPUT
F/X ; FREQUENCY/CRYSTAL SELECT INPUT
CK ; PROCESSOR CLOCK OUTPUT
PRCK ; PERIPHERAL CLOCK OUTPUT
OSC ; OSCILLATOR OUTPUT
CKSYN ; CLOCK SYNCHRONIZATION INPUT
RESIN ; RESET INPUT
RDY1, RDY2 ; BUS READY INPUT
REN1, REN2 ; READY ENABLE INPUT
RDYSYN ; READY SYNCHRONIZATION SELECT INPUT

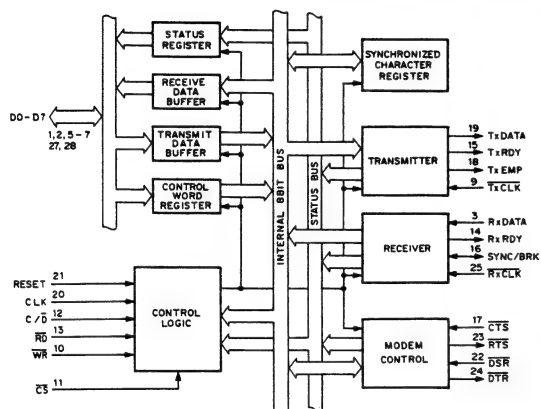


Pin	Signal
1	D2
2	D3
3	RxDATA
4	GND
5	D4
6	D5
7	D6
8	D7
9	TxCLK
10	WR
11	CS
12	C/D
13	RD
14	RxDY
15	D1
16	DO
17	VDD (+5V)
18	RxCLK
19	DTR
20	RTS
21	DSR
22	RESET
23	CLK
24	TxDATA
25	TxEMP
26	CTS
27	SYNC/BRK
28	TxRDY

```

CLK     :CLOCK
CS      :CHIP SELECT
CTS     :CLEAR TO SEND
C/D     :CONTROL OR DATA
D0-7    :DATA BUS
DSR     :DATA SET READY
DTR     :DATA TERMINAL READY
RD      :READ STROBE
RESET   :RESET
RST     :REQUEST TO SEND
RXCLK   :RECEIVER CLOCK
RXDATA  :RECEIVE DATA
RXRDY   :RECEIVER READY
RXBRK/BK :SYNCHRONIZATION/BREAK
TXCLK   :TRANSMITTER CLOCK
TXDATA  :TRANSMIT DATA
TXEMP   :TRANSMITTER EMPTY
TXRDY   :TRANSMITTER READY
WR      :WRITE STROBE

```



CS	RD	WR	C/D	MODE	FUNCTION
0	0	1	0	RECEIVE DATA BUFFER--> DATA BUS	READ RECEIVE DATA
0	0	1	1	STATUS REGISTER--> DATA BUS	READ STATUS
0	1	0	0	DATA BUS--> TRANSMIT DATA BUFFER	WRITE RECEIVE DATA
0	1	0	1	DATA BUS--> CONTROL WORD REGISTER	WRITE CONTROL WORD
0	1	1	X	DATA BUS:HIGH IMPEDANCE	
1	X	X	X	DATA BUS:HIGH IMPEDANCE	

1:HIGH LEVEL
0:LOW LEVEL
X:DON'T CARE

Pin diagram of the 74VHC04 hex inverters. The diagram shows a 14-pin package with pins 1 through 14. Pin 1 is labeled 'D7 1/0'. Pin 2 is 'D6 1/0'. Pin 3 is 'D5 1/0'. Pin 4 is 'D4 1/0'. Pin 5 is 'D3 1/0'. Pin 6 is 'D2 1/0'. Pin 7 is 'D1 1/0'. Pin 8 is 'D0 1/0'. Pin 9 is 'CLK 0 IN'. Pin 10 is 'OUT 0'. Pin 11 is 'GATE 0 IN'. Pin 12 is 'GND'. Pin 13 is 'OUT 1'. Pin 14 is 'CLK 1 IN'. Pin 15 is 'GATE 1 IN'. Pin 16 is 'GATE 2 IN'. Pin 17 is 'OUT 2'. Pin 18 is 'CLK 2 IN'. Pin 19 is 'GATE 2 IN'. Pin 20 is 'A1 IN'. Pin 21 is 'CS IN'. Pin 22 is 'RD IN'. Pin 23 is 'WR IN'. Pin 24 is 'VDD (+5V)'.

FUNCTION TABLE					
INPUTS					FUNCTION
CS	RD	WR	A1	AO	
0	1	0	0	0	Load Counter No. 0
0	1	0	0	1	Load Counter No. 1
0	1	0	1	0	Load Counter No. 2
0	1	0	1	1	Control Word
0	0	1	0	0	Read Counter 0
0	0	1	0	1	Read Counter 1
0	0	1	1	0	Read Counter 2
0	0	1	1	1	No-Operation (HI-Z)
1	X	X	X	X	Disable (HI-Z)
1	0	1	X	X	No-Operation (HI-Z)

```
A0, A1      : COUNTER SELECT INPUTS
CLK 0-2     : COUNTER CLOCK INPUTS
CS          : CHIP SELECT INPUT
D0-D7       : 8-BIT DATA INPUTS/OUTPUTS
GATE 0-2    : COUNTER GATE INPUTS
OUT 0-2     : COUNTER OUTPUTS
RD          : READ COUNTER INPUT
WR          : WRITE CMD OR DATA INPUT
```

0;LOW LEVEL
1;HIGH LEVEL
X;DON'T CARE
HI-Z;HIGH IMPEDANCE

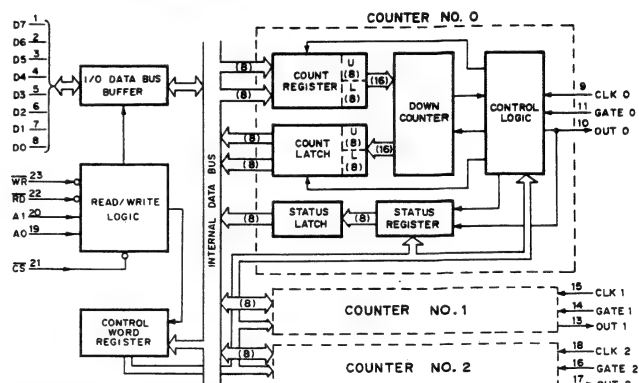
CONTROL WORD FORMAT

Figure 10-1: Counter Register Bit Fields

The Counter Register bit fields and their functions are as follows:

Bit	Label	Function
D7	SC1	SELECTED COUNTER
D6	SCO	
D5	RL1	COUNTER LATCHING
D4	RLO	
D3	M2	MODE
D2	M1	
D1	MO	
D0	BCD	BCD OPERATION

BCD OPERATION

BCD	OPERATION
0	16-BIT BINARY
1	BCD (4-DECADE)

MODE

M2	M1	MO	MODE
0	0	0	0
0	0	1	1
X	1	0	2
X	1	1	3
1	0	0	4
1	0	1	5

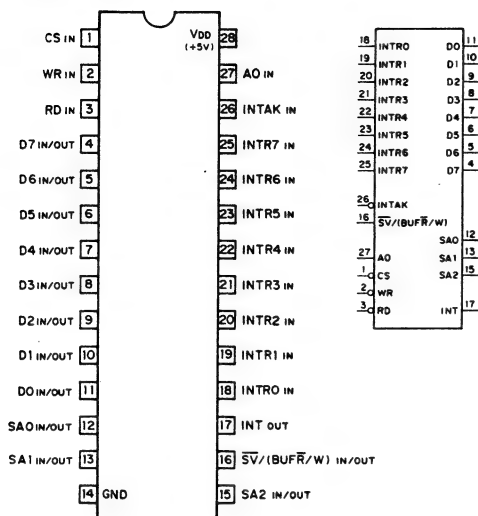
COUNTER LATCHING

RL1	RLO	OPERATION
0	0	COUNTER LATCHING
0	1	READ/LOAD LSB ONLY
1	0	READ/LOAD MSB ONLY
1	1	LSB FIRST THEN MSB

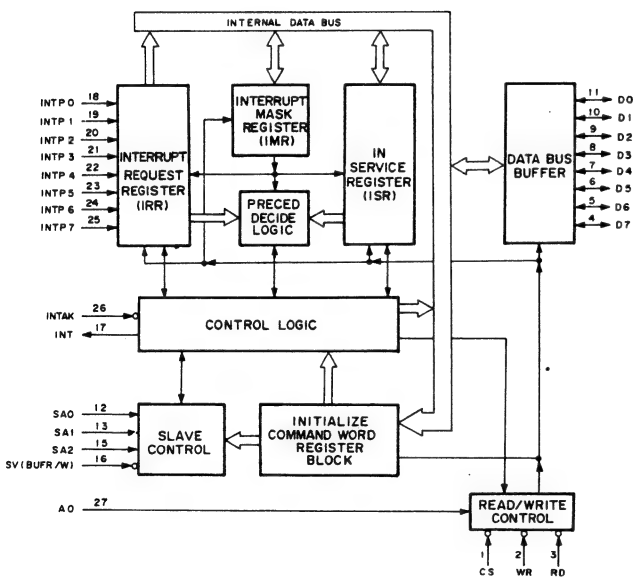
SELECTED COUNTER

SC1	SCO	SELECTED COUNTER
0	0	COUNTER No. 0
0	1	COUNTER No. 1
1	0	COUNTER No. 2
1	1	MULTIPLE LATCH CMD

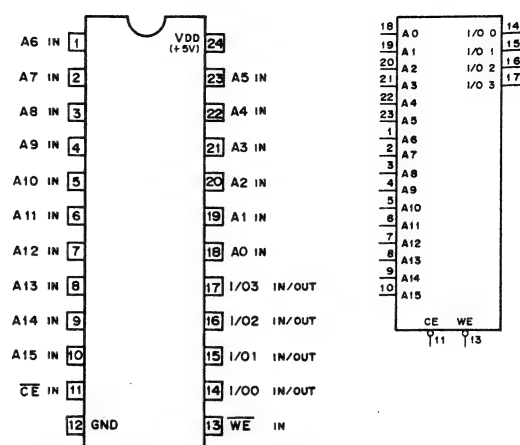
CXQ71059P (SONY)

C-MOS INTERRUPT CONTROL UNIT
- TOP VIEW -

INTR0-INTR7; INTERRUPT REQUEST INPUTS
D0-D7; DATA BUS INPUTS/OUTPUTS
CS; CHIP SELECT INPUT
RD; READ STROBE INPUT
WR; WRITE STROBE INPUT
AO; ADDRESS INPUT
INT; INTERRUPT OUTPUT
INTAK; INTERRUPT ACKNOWLEDGE INPUT
SV(BUFR/W); SLAVE/BUFFER READ/WRITE INPUT/OUTPUT
SA0-SA2; SLAVE ADDRESS INPUTS/OUTPUTS

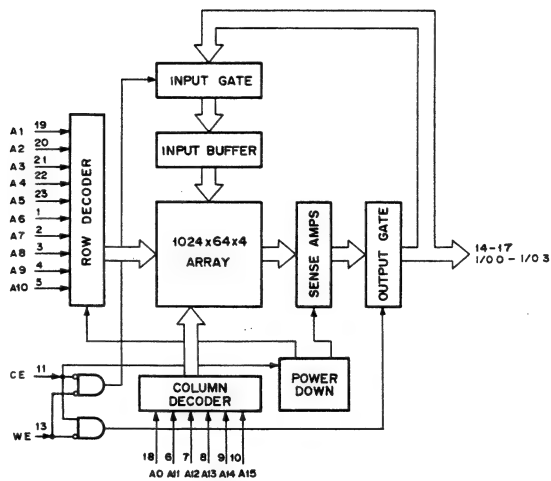


CY7C194-35PC (CYPRESS)

C-MOS 65536x4 STATIC RAM
- TOP VIEW -

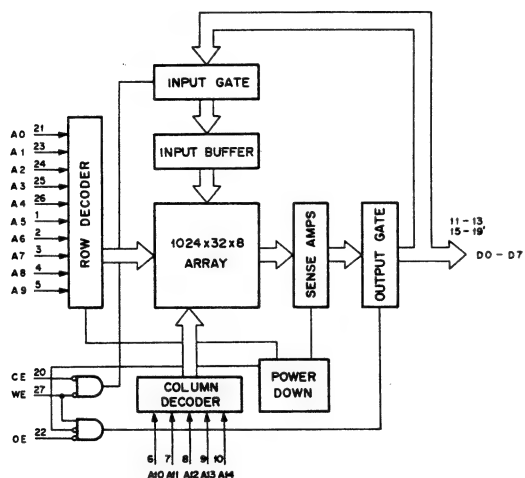
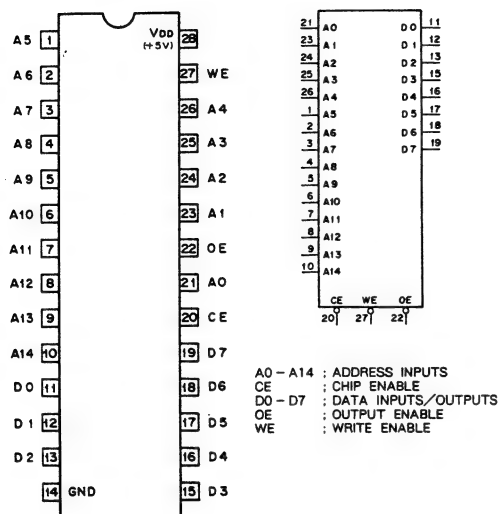
CE	WE	I/O	MODE
1	X	HI-Z	DESELECT/POWER DOWN
0	1	DATA OUT	READ
0	0	DATA IN	WRITE

0 : LOW LEVEL
1 : HIGH LEVEL
X : DON'T CARE
HI-Z : HIGH IMPEDANCE



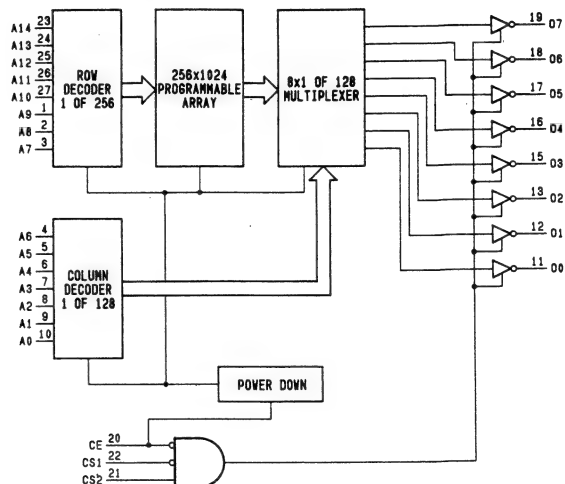
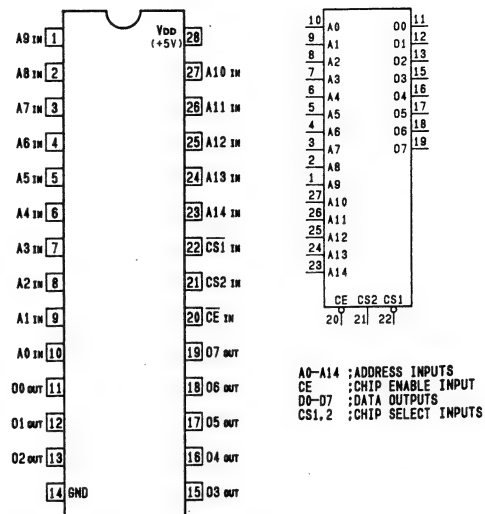
CY7C199-45PC (CYPRESS)

C-MOS 32K (32768x8)-BIT STATIC RAM
- TOP VIEW -

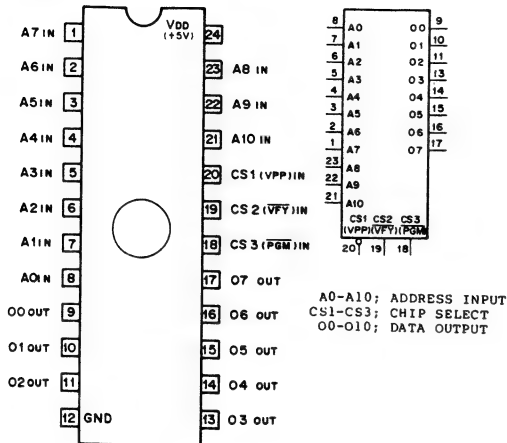


CY7C271-55PC (CYPRESS)

C-MOS 32K (32768x8)-BIT STATIC RAM
- TOP VIEW -



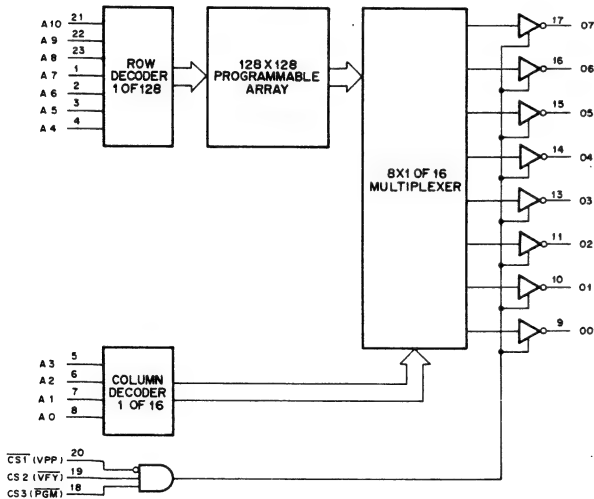
CY7C291L-35PC (CYPRESS)
C-MOS 16K(2048x8)-BIT EPROM
- TOP VIEW -



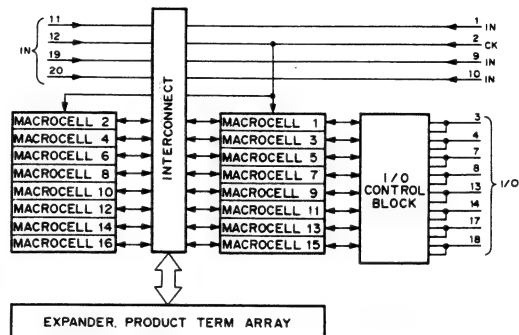
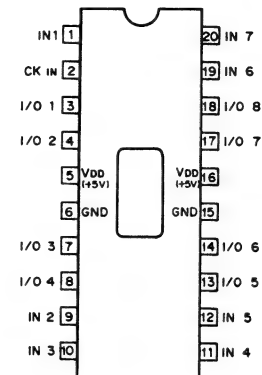
MODE SELECTION

CS1	CS2	CS3	OUTPUTS	MODE
0	1	1	DATA OUT	READ
1	X	X	HI-Z	OUTPUT DISABLE
X	0	X	HI-Z	OUTPUT DISABLE
X	X	0	HI-Z	OUTPUT DISABLE
VPP	1	0	DATA IN	PROGRAM
VPP	0	1	DATA OUT	PROGRAM VERIFY
VPP	1	1	HI-Z	PROGRAM INHIBIT
VPP	1	0	DATA IN	INTELLIGENT PROGRAM
0	0	VPP	ONES	BLANK CHECK ONES
0	1	VPP	ZEROS	BLANK CHECK ZEROS

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
(NOT TO EXCEED VDD +5%)
HI-Z; HIGH IMPEDANCE
VPP; PROGRAMING VOLTAGE
(+13V to +14V)

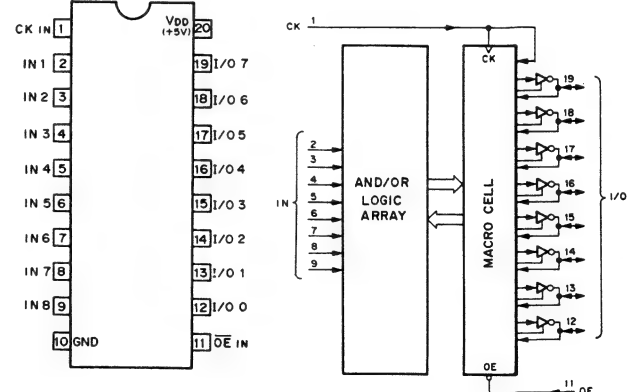


EPM5016DC-2 (ALTERA)
EPM5016PC-1 (ALTERA)
C-MOS UV ERASABLE PROGRAMMABLE LOGIC DEVICE
- TOP VIEW -



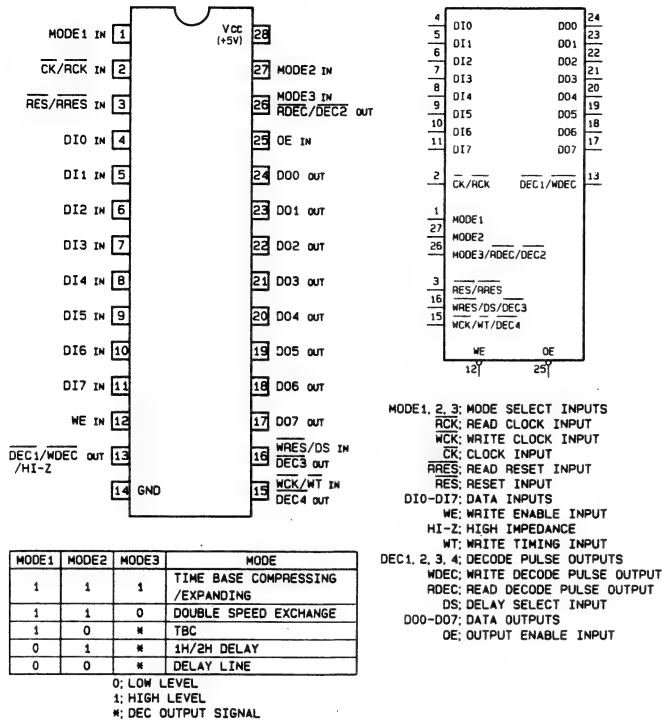
ABOVE DIAGRAM SHOWS CONDITIONS BEFORE PROGRAMING.

GAL16V8B-7LP (LATTICE)
C-MOS ELECTRICALLY ERASABLE PROGRAMMABLE LOGIC DEVICE
- TOP VIEW -

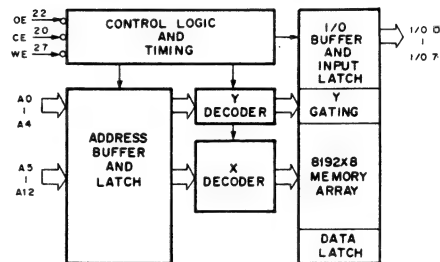
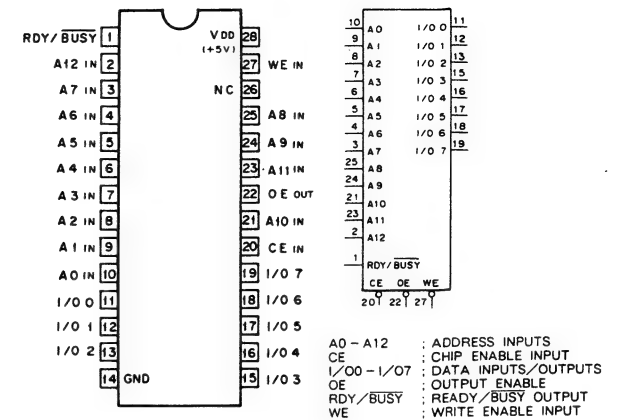


* ABOVE DIAGRAM SHOWS CONDITIONS BEFORE PROGRAMMING.

HM63021FP-28 (HITACHI) FLAT PACKAGE
 HM63021P-28 (HITACHI) (ACCESS TIME = 28ns)
 2048 WORDx8-BIT LINE MEMORY
 - TOP VIEW -



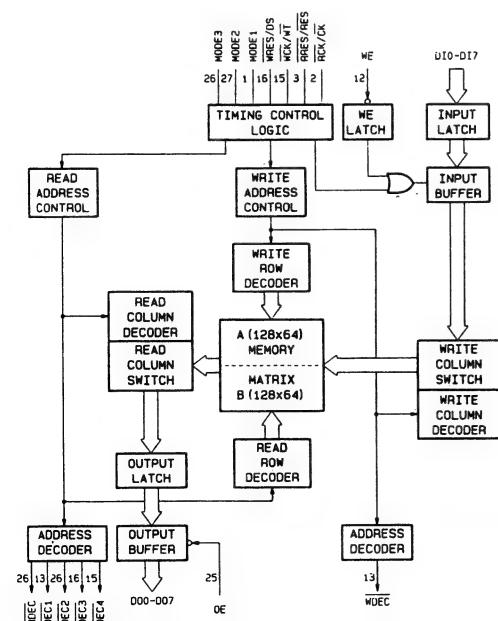
HN58C65P-25 (HITACHI)
 CMOS 64K (8192x8)-BIT EEPROM
 - TOP VIEW -



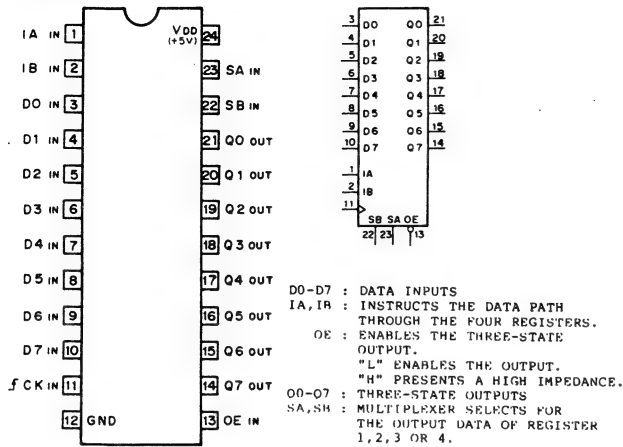
PIN NO.	MODE				
	TIME BASE COMPRESSING /EXPANDING	DOUBLE SPEED EXCHANGE	TBC	1H/2H DELAY	DELAY LINE
1	MODE1				
2	RCK				CK
3	RRES				RES
4-11	DIO-DI7				
12	WE				
13	HI-Z				DEC1
15	WCK				WT
16	WRES				DS
17-24	D00-D07				
25	OE				
26	MODE3				DEC2
27	MODE2				

CE	OE	WE	RDY/BUSY	I/O TERMINAL	FUNCTION
0	0	1	HI-Z	DOUT	READ
1	X	X	HI-Z	HI-Z	STANDBY
0	1	0	HI-Z → LOW	Din	WRITE
0	1	1	HI-Z	HI-Z	DESELECT
X	X	1	HI-Z	-	WRITE INH
X	0	X	HI-Z	-	WRITE INH
0	0	1	LOW	DATA OUT (I/O 7)	DATA POLLING

0: LOW LEVEL
 1: HIGH LEVEL
 X: DON'T CARE
 HI-Z: HIGH IMPEDANCE

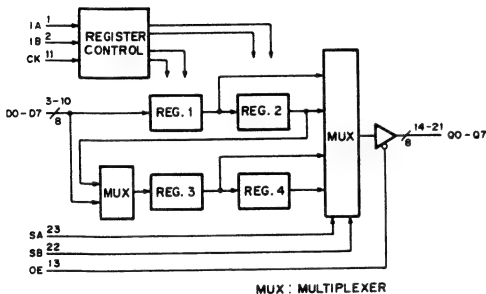


L29C520PC (LOGIC DEVICES)

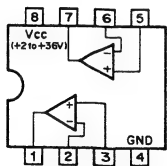
C-MOS 8-BIT 2-OR 4-LEVEL PIPELINE REGISTER WITH 3-STATE OUTPUT
- TOP VIEW -

1B 1B	TRANSFER OF DATA	SB SA	REGISTER SELECTED
0 0	D → R1 R1 → R2 R2 → R3 R3 → R4	0 0	REG. 4
0 1	D → R3 R3 → R4 R1, R2 ON HOLD	0 1	REG. 3
1 0	D → R1 R1 → R2 R3, R4 ON HOLD	1 0	REG. 2
1 1	ALL REGISTERS ON HOLD	1 1	REG. 1

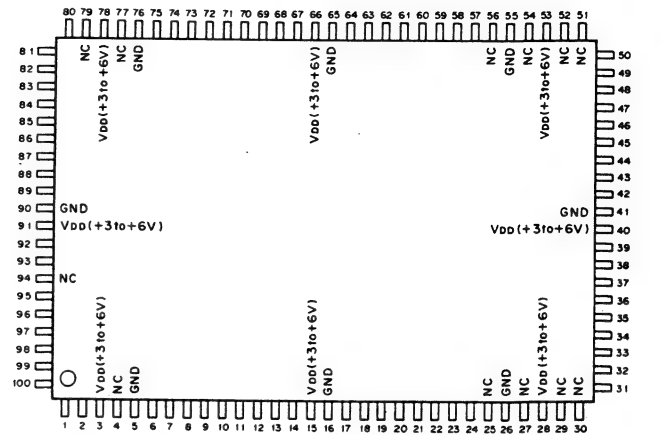
0 : LOW LEVEL D : DATA INPUT
1 : HIGH LEVEL R : REGISTER



LM2903P (TI)

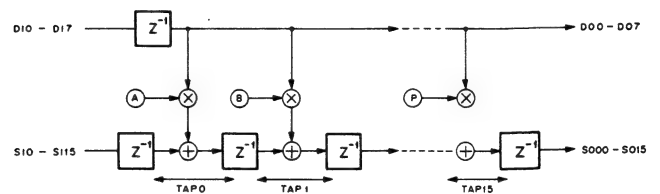
DUAL VOLTAGE COMPARATORS
- TOP VIEW -

LSP001AC-Q (LOGIC DEVICES)

VIDEO SIGNAL PROCESS DIGITAL FILTER
- TOP VIEW -

VDD = +3 to +6V

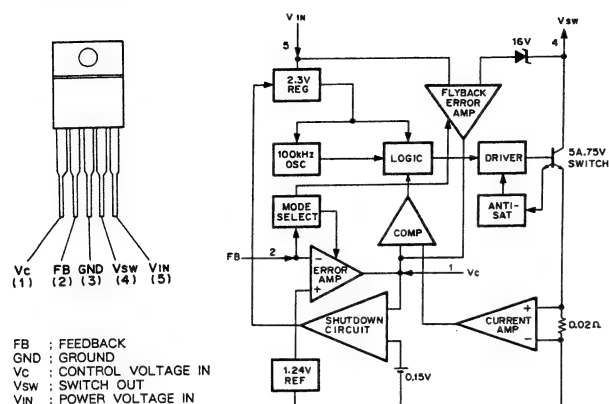
PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL	PIN NO.	I/O	SYMBOL
1	I	CS2	26	-	GND	51	-	NC	76	-	GND
2	I	WE	27	-	NC	52	-	NC	77	-	NC
3	-	VDD	28	-	VDD	53	-	VDD	78	-	VDD
4	-	NC	29	-	NC	54	-	NC	79	-	NC
5	-	GND	30	-	NC	55	-	GND	80	I	FZ
6	I	TI	31	I	DIO	56	-	NC	81	I	OE
7	I	SI15	32	I	DI1	57	O	SO00	82	I	CI0
8	I	SI14	33	I	DI2	58	O	SO01	83	I	CI1
9	I	SI13	34	I	DI3	59	O	SO02	84	I	CI2
10	I	SI12	35	I	DI4	60	O	SO03	85	I	CI3
11	I	SI11	36	I	DI5	61	O	SO04	86	I	CI4
12	I	SI10	37	I	DI6	62	O	SO05	87	I	CI5
13	I	SI09	38	I	DI7	63	O	SO06	88	I	CI6
14	I	SI08	39	I	OVFIN	64	O	SO07	89	I	CI7
15	-	VDD	40	-	VDD	65	-	GND	90	-	GND
16	-	GND	41	-	GND	66	-	VDD	91	-	VDD
17	I	SI07	42	O	OVFOUT	67	O	SO08	92	I	CLK
18	I	SI06	43	O	DO7	68	O	SO09	93	I	WCK
19	I	SI05	44	O	DO6	69	O	SO10	94	-	NC
20	I	SI04	45	O	DO5	70	O	SO11	95	I	A0
21	I	SI03	46	O	DO4	71	O	SO12	96	I	A1
22	I	SI02	47	O	DO3	72	O	SO13	97	I	A2
23	I	SI01	48	O	DO2	73	O	SO14	98	I	A3
24	I	SI00	49	O	DO1	74	O	SO15	99	I	CS0
25	-	NC	50	O	DO0	75	O	PO	100	I	CS1



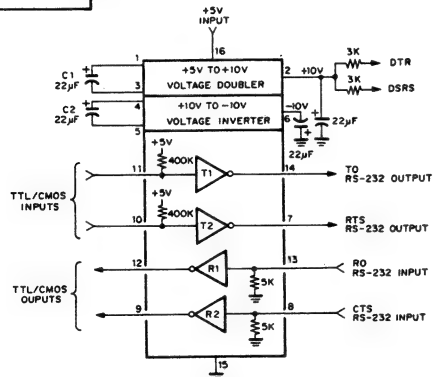
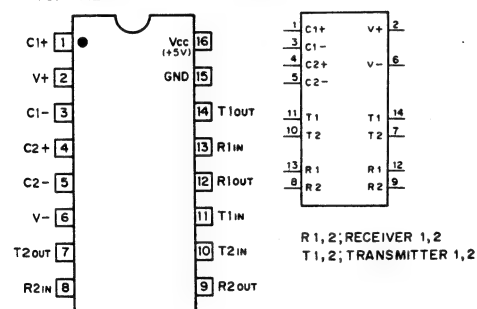
INPUT
A0 - A3 : COEFFICIENT RESISTOR SELECT SIGNAL
CI0 - CI7 : COEFFICIENT DATA INPUTS
CLK : VIDEO CLOCK
CS0 - CS2 : CHIP SELECT
DIO - DI7 : SIGNAL DATA INPUTS
FZ : FLASH EERO
OE : CASCADE SUM OUTPUT ENABLE
OVFIN : OVER FLOW INPUT
SI00 - SI15 : CASCADE SUM INPUTS
TI : TEST ENABLE INPUT (NORMALLY HIGH LEVEL)
WCK : COEFFICIENT WRITE CLOCK
WE : WRITE ENABLE

OUTPUT
DO0 - DO7 : SIGNAL DATA OUTPUTS
OVFOUT : OVER FLOW OUTPUT
PO : TEST OUTPUT (NORMALLY NC)
S000 - S015 : CASCADE SUM OUTPUTS

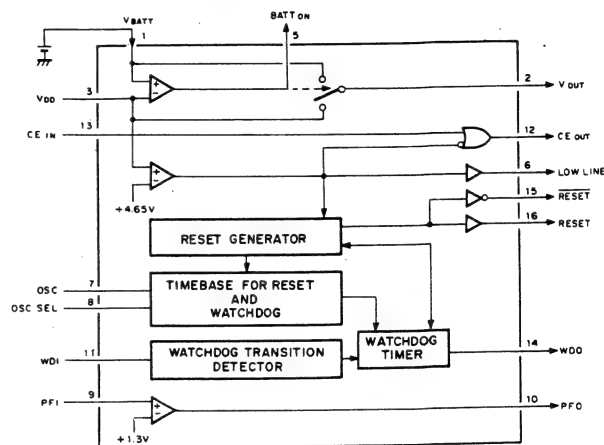
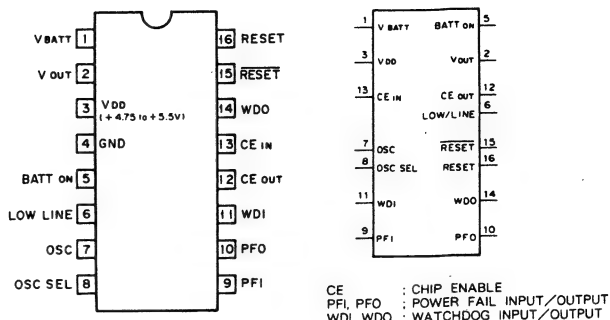
LT1171CT (LINEAR TECHNOLOGY)
SWITCHING REGULATORS (100kHz)
- SIDE VIEW -



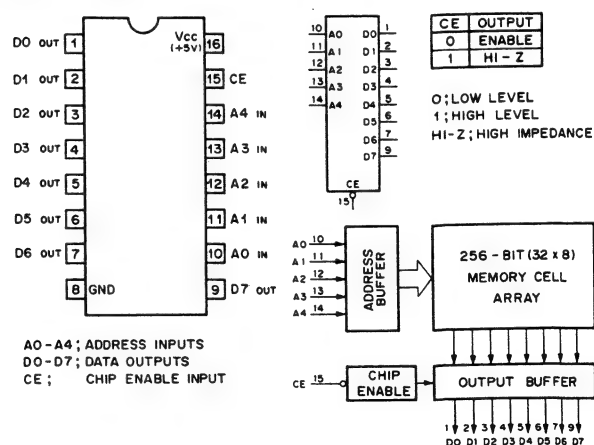
MAX232CPE (MAXIM)
RS-232 TRANSMITTER/RECEIVER
- TOP VIEW -



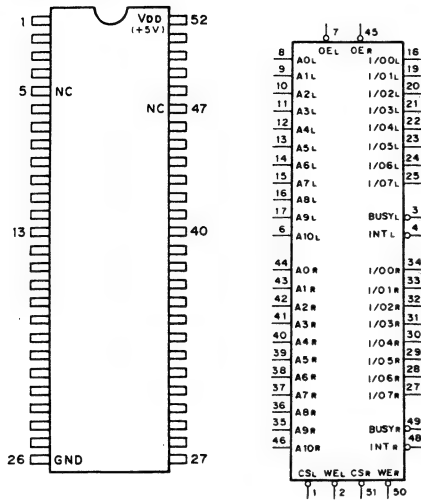
MAX691CPE (MAXIM)
CMOS MICROPROCESSOR SUPERVISORY CIRCUITS
- TOP VIEW -



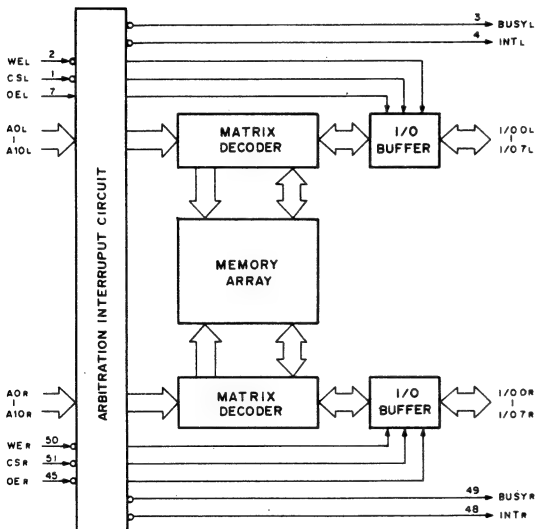
MB7112L (FUJITSU) (ACCESS TIME = 50ns)
256-BIT (32x8) PROM WITH 3-STATE OUTPUT
- TOP VIEW -



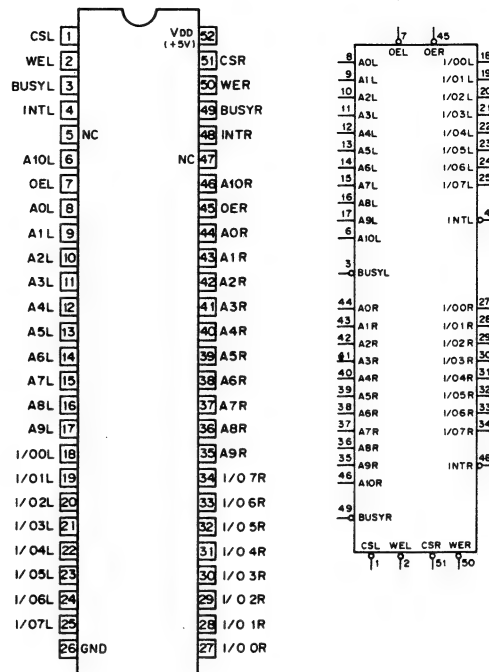
MB8421-90LP (FUJITSU)

C-MOS 16384 (2Kx8) BIT DUAL PORT STATIC RAM
- TOP VIEW -

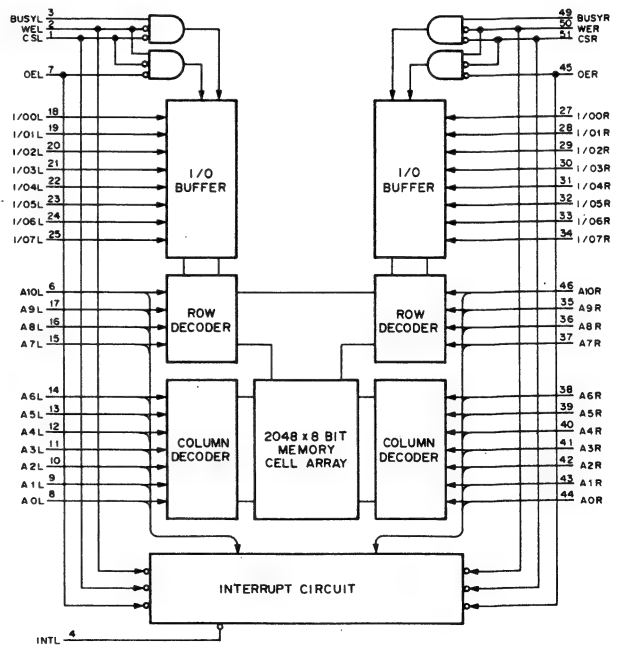
A0L-A10L, A0R-A10R ; ADDRESS INPUTS
I/O0L-I/O70L, I/O0R-I/O70R ; DATA INPUTS/OUTPUTS
CSL, CSR ; CHIP SELECT INPUT
WEL, WER ; WRITE ENABLE INPUT
OEL, OER ; OUTPUT ENABLE INPUT
BUSYL, BUSYR ; BUSY OUTPUT
INTL, INTR ; INTERRUPT OUTPUT



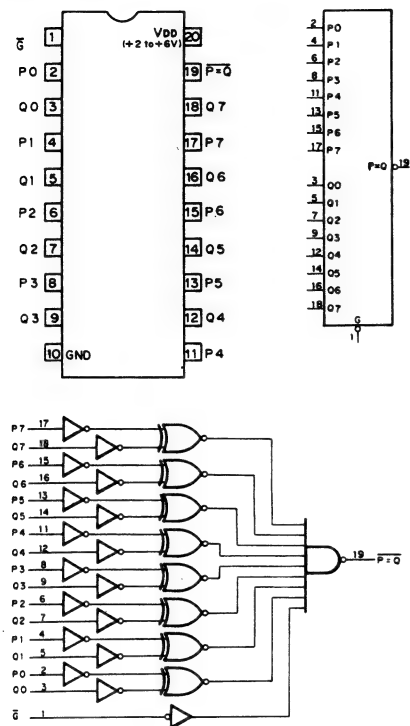
MB8431-90LP (FUJITSU)

C-MOS 16K (2048x8)-BIT DUAL PORT STATIC RAM
- TOP VIEW -

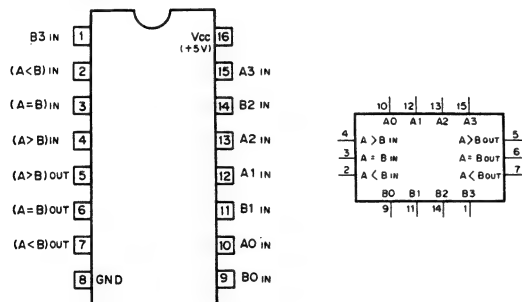
A0L - A10L, A0R - A10R : ADDRESS INPUTS
I/O0L - I/O70L, I/O0R - I/O70R : DATA INPUTS/OUTPUTS
CSL, CSR : CHIP SELECT INPUT
WEL, WER : WRITE ENABLE INPUT
OEL, OER : OUTPUT ENABLE INPUT
BUSYL, BUSYR : BUSY INPUT
INTL, INTR : INTERRUPT OUTPUT



MC74HC688N (MOTOROLA)
C-MOS 8-BIT EQUALITY DETECTOR
- TOP VIEW -



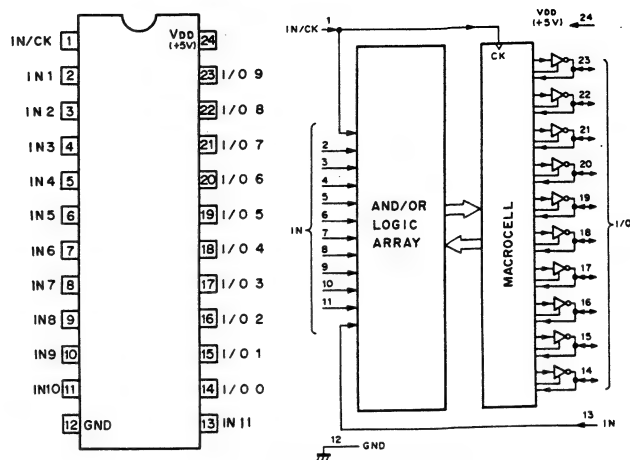
N74F85N (SIGNETICS)
TTL 4-BIT MAGNITUDE COMPARATOR
- TOP VIEW -



INPUTS				CASCADING			OUTPUTS		
DATA COMPARING									
A ₃	B ₃	A ₂	B ₂	A ₁	B ₁	A ₀	B ₀	A<B	A=B
A>B	A3>B3	X	X	X	X	X	X	0	0
A=B	A3=B3	A2>B2	X	X	X	X	X	0	0
A>B	A3=B3	A2=B2	A1>B1	X	X	X	X	0	0
A<B	A3=B3	A2=B2	A1=B1	A0>B0				1	0
A=B	A3=B3	A2=B2	A1=B1	A0=B0				1	0
A>B	A3=B3	A2=B2	A1=B1	A0=B0				1	0
A<B	A3=B3	A2=B2	A1=B1	A0=B0				1	0
A=B	A3=B3	A2=B2	A1=B1	A0=B0				1	0
A>B	A3=B3	A2=B2	A1=B1	A0=B0				1	0
A<B	A3=B3	A2=B2	A1=B1	A0=B0				1	0

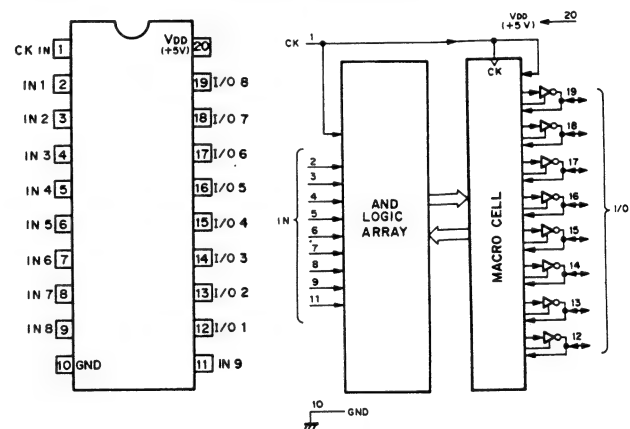
0: LOW LEVEL 1: HIGH LEVEL X: DON'T CARE

PALC22V10-25PC (AMD/MONOLITHIC MEMORIES)
C-MOS PROGRAMMABLE LOGIC DEVICE
- TOP VIEW -



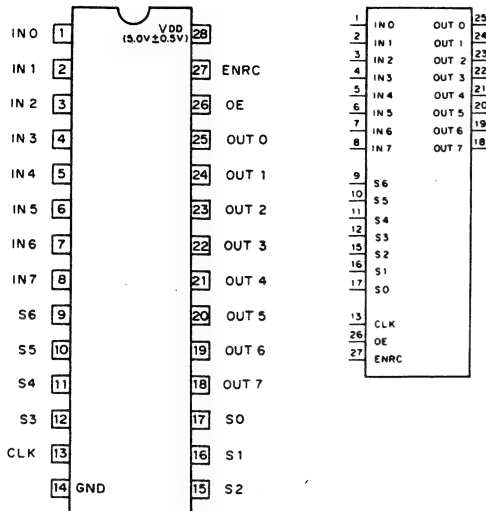
* ABOVE DIAGRAM SHOWS CONDITIONS BEFORE PROGRAMMING.

PEEL18CV8-15 (AMI)
PEEL18CV8-25 (AMI)
PEEL18CV8P-35 (AMI)
C-MOS ELECTRICALLY ERASABLE PROGRAMMABLE LOGIC DEVICE
- TOP VIEW -

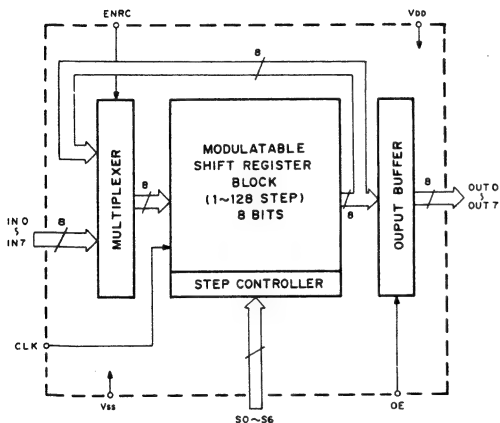


* ABOVE DIAGRAM SHOWS CONDITIONS BEFORE PROGRAMMING.

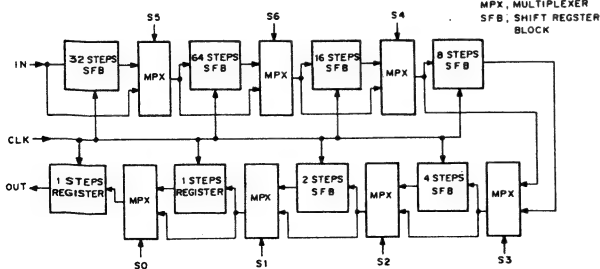
SM5828P (NPC)

C-MOS 128 STEPS 8 BITS PROGRAMABLE SHIFT REGISTER
- TOP VIEW -

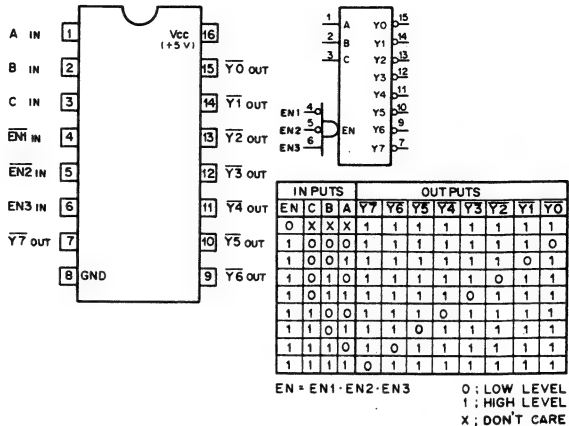
CLK ; CLOCK INPUT
ENRC ; CIRCULATION CONTROL
IN0-IN7 ; DATA INPUT
OE ; OUTPUT ENABLE
OUT0-OUT7 ; DATA OUTPUT
S0-S6 ; REGISTER LENGTH SELECT



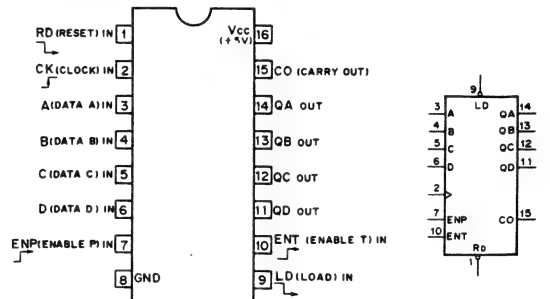
MODULATABLE SHIFT REGISTER BLOCK



SN74ALS138N (TI)

TTL 3-TO-8-LINE DECODER/DEMULTIPLEXER
- TOP VIEW -

SN74ALS161BN (TI)

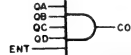
TTL PRESETTABLE SYNCHRONOUS 4-BIT BINARY COUNTER
- TOP VIEW -

MODE SELECTION

CONTROL INPUTS					MODE
Rd	LD	ENP	ENT		
0	X	X	X		RESET (ASYNCHRONOUS)
1	0	X	X		PRESET (SYNCHRONOUS)
1	1	0	X		NO COUNT
1	1	X	0		NO COUNT
1	1	1	1		COUNT

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE

CARRY OUTPUT "CO"

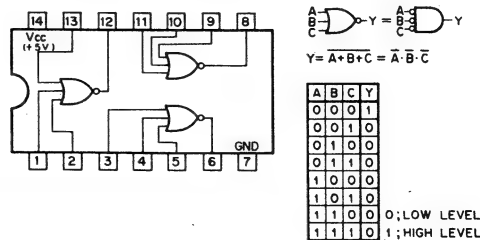


CO IS HIGH WHEN ENT INPUT IS HIGH AND COUNT IS "15".

COUNT SEQUENCE

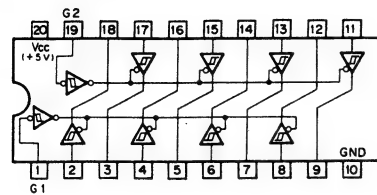
COUNT	OUTPUTS			
	QD	QC	QB	QA
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1

SN74ALS27N (TI)

TTL 3-INPUT POSITIVE-NOR GATE
- TOP VIEW -

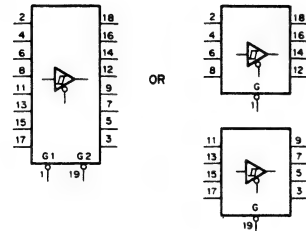
SN74ALS244BN (TI)

TTL 3-STATE SCHMITT TRIGGER BUFFER/DRIVER
- TOP VIEW -



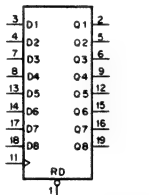
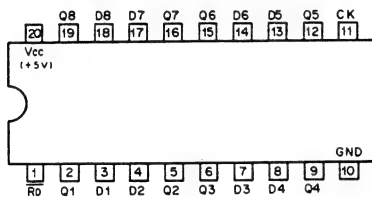
G	A	Y
0	0	0
0	1	1
1	X	HI-Z

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI-Z; HIGH IMPEDANCE



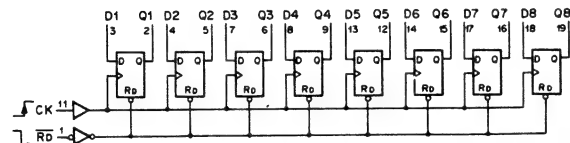
SN74ALS273N (TI)

TTL D-TYPE FLIP-FLOP WITH DIRECT RESET
- TOP VIEW -



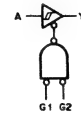
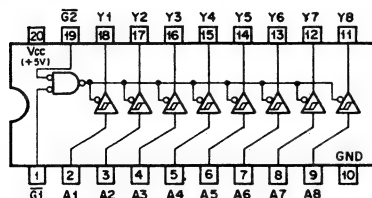
EACH FLIP-FLOP			
INPUTS			OUT
RD	CK	D	Q
0	X	X	0
1	f	0	0
1	f	1	1
1	0	X	Q0

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE



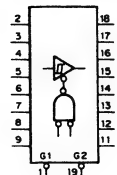
SN74ALS541N (TI)

TTL BUFFERS AND LINE DRIVERS WITH 3-STATE OUTPUTS
- TOP VIEW -



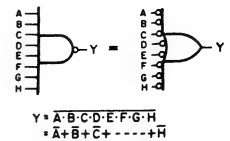
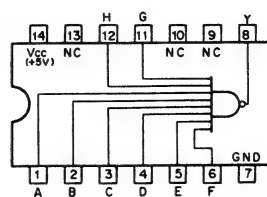
G1	G2	A	Y
0	0	0	0
0	0	1	1
1	X	X	HI-Z
X	1	X	HI-Z

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI-Z; HIGH IMPEDANCE



SN74ALS30AN (TI)

TTL 8-INPUT POSITIVE-NAND GATE
- TOP VIEW -

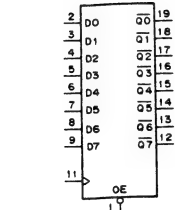
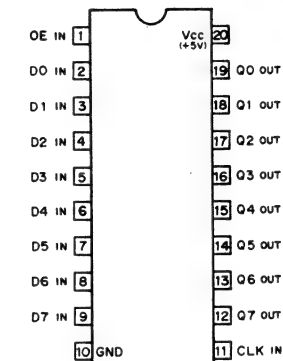


$$Y = \overline{A \cdot B \cdot C \cdot D \cdot E \cdot F \cdot G \cdot H}$$

$$= \overline{A} + \overline{B} + \overline{C} + \dots + \overline{H}$$

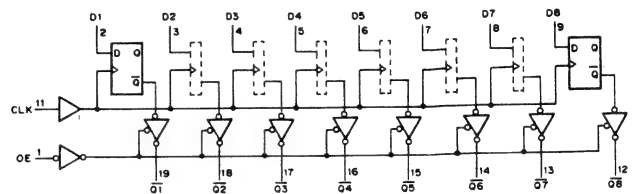
SN74ALS564AN (TI)

TTL OCTAL D-TYPE FLIP-FLOPS WITH 3-STATE OUTPUTS



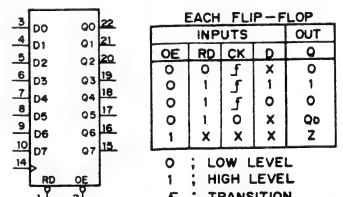
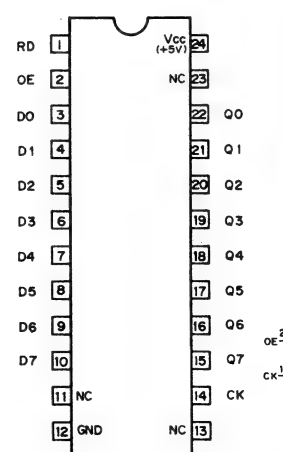
EACH FLIP-FLOP			
INPUTS			OUTPUT
OE	CLK	D	Q
0	f	1	0
0	f	0	1
0	0	X	NO CHANGE
1	X	X	HI-Z

0; LOW LEVEL
1; HIGH LEVEL
X; DON'T CARE
HI-Z; HIGH IMPEDANCE



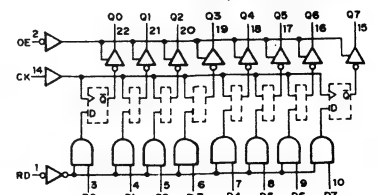
SN74ALS575ANT (TI)

TTL 3-STATE OCTAL D-TYPE EDGE-TRIGGERED FLIP-FLOPS WITH CLEAR
- TOP VIEW -

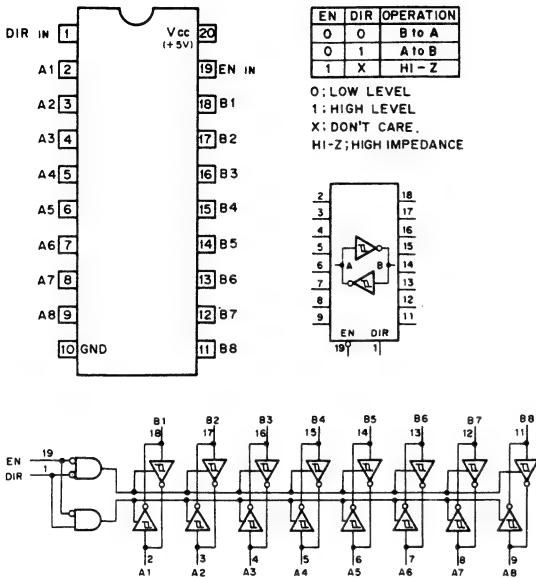


EACH FLIP-FLOP				
INPUTS				OUT
OE	RD	CK	D	Q
0	0	f	X	1
0	1	f	0	0
0	1	0	X	Q0
1	X	X	X	Z

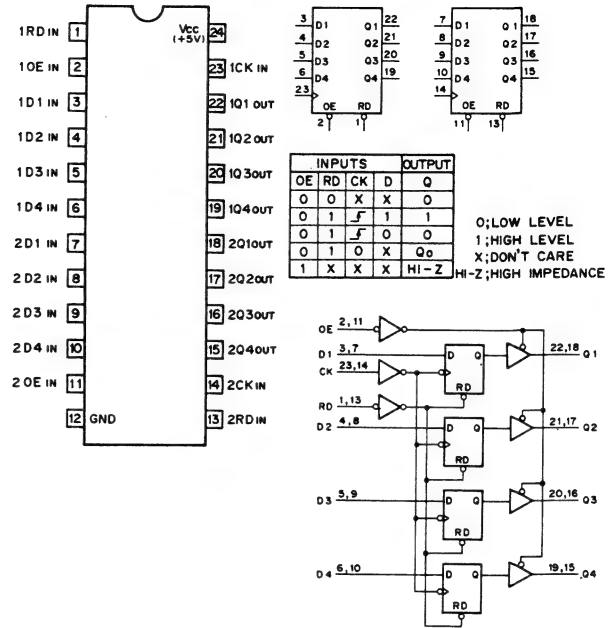
0; LOW LEVEL
1; HIGH LEVEL
f; TRANSITION FROM LOW TO HIGH
X; DON'T CARE
Z; HIGH-IMPEDANCE
OE; OUTPUT ENABLE
RD; RESET DATA



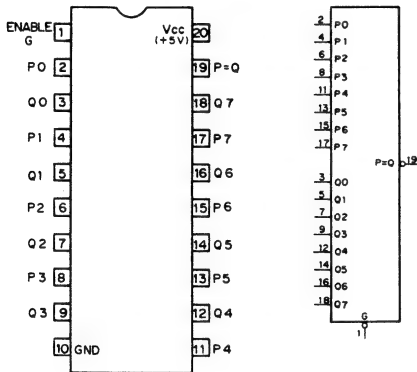
SN74ALS640AN (TI)
SN74LS640-1N (TI)
TTL BILATERAL SCHMITT TRIGGER BUS TRANSCEIVERS INVERTER
WITH 3-STATE OUTPUT
- TOP VIEW -



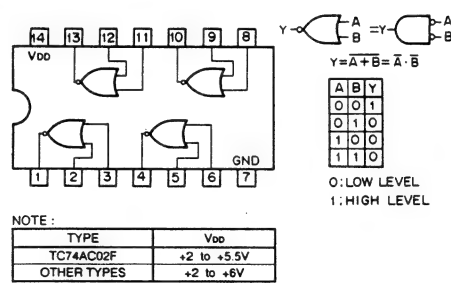
SN74ALS874NT (TI)
TTL DUAL 4-BIT D-TYPE EDGE-TRIGGERED FLIP-FLOPS
- TOP VIEW -



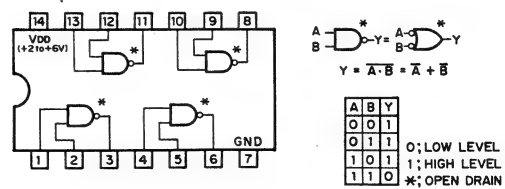
SN74ALS688N (TI)
TTL 8-BIT MAGNITUDE COMPARATOR
- TOP VIEW -



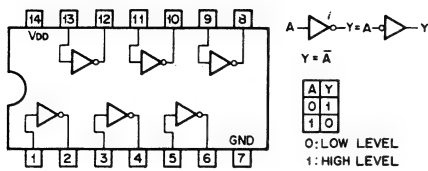
SN74HC02AN (TI)
CMOS QUAD 2-INPUT NOR GATE
- TOP VIEW -



SN74HC03AN (TI) FLAT PACKAGE
CMOS 2-INPUT POSITIVE-NAND GATE WITH OPEN-DRAIN
- TOP VIEW -



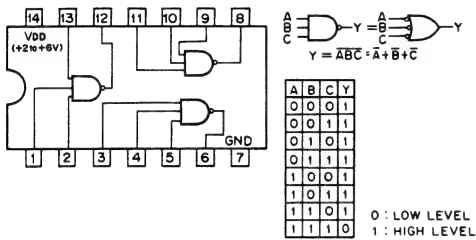
SN74HC04AN (TI)
SN74HC04ANS (TI) FLAT PACKAGE
C-MOS HEX INVERTER
- TOP VIEW -



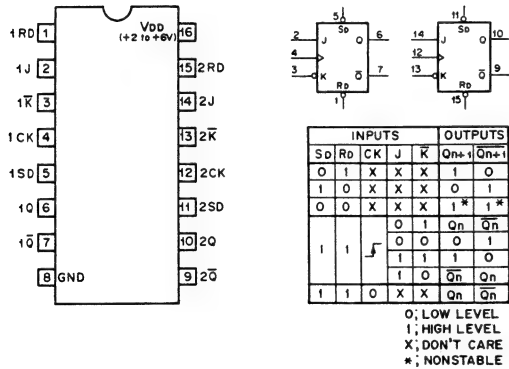
NOTE:

TYPE	V _{DD}
74ACT04 TYPES	+5V
74HCT04 TYPES	+5V
TC74AC04F	+2 to +5.5V
TC74ACT04F	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

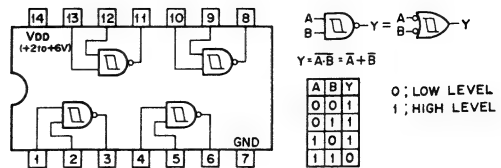
SN74HC10AN (TI)
C-MOS 3-INPUT NAND GATE
- TOP VIEW -



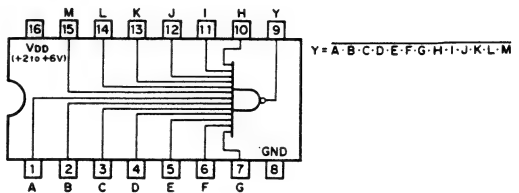
SN74HC109AN (TI)
C-MOS J-K FLIP-FLOP WITH DIRECT SET/RESET
- TOP VIEW -



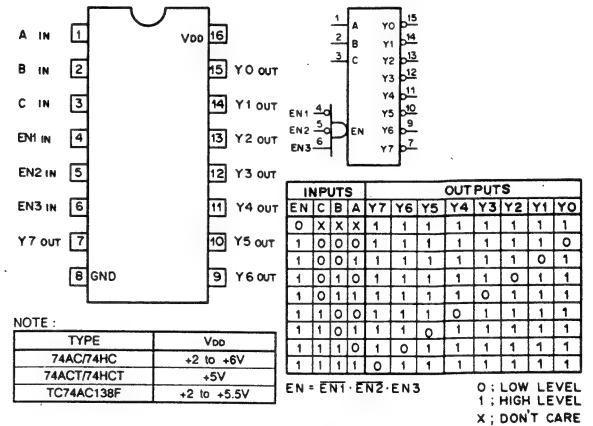
SN74HC132AN (TI)
C-MOS 2-INPUT NAND SCHMITT TRIGGER
- TOP VIEW -



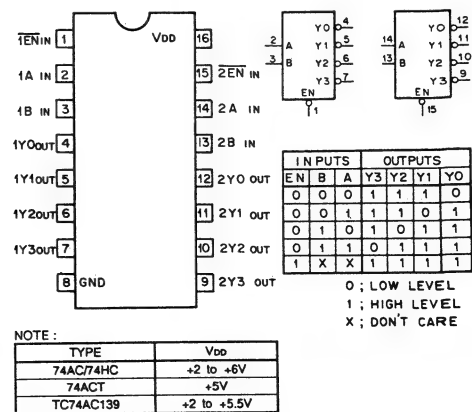
SN74HC133N (TI)
C-MOS 13-INPUT NAND GATE
- TOP VIEW -



SN74HC138AN (TI)
C-MOS 3-TO-8 LINE DECODER/DEMULIPLEXER
- TOP VIEW -

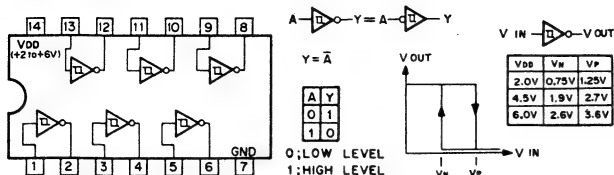


SN74HC139ANS (TI) FLAT PACKAGE
C-MOS DUAL 2-TO-4 DECODER/DEMULIPLEXER
- TOP VIEW -



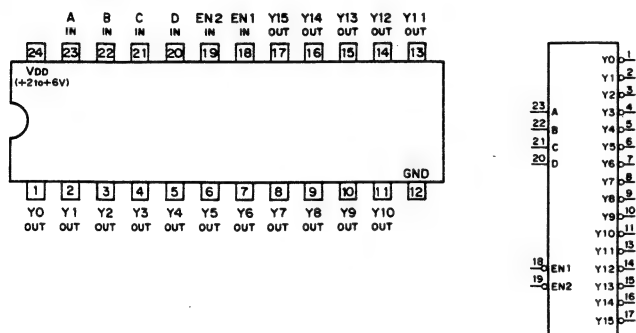
SN74HC14AN (TI)

C-MOS SCHMITT TRIGGER INVERTER
- TOP VIEW -



SN74HC154NT (TI)

C-MOS 4-TO-16 LINE DECODER/DEMULTIPLEXER
- TOP VIEW -

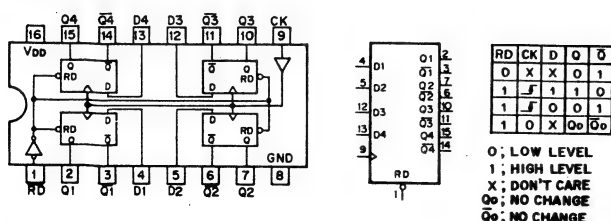
[illegible]

0; LOW LEVEL
1; HIGH LEVEL
X: DON'T CARE

SN74HC175AN (TI)

SN74HC175ANS (TI) FLAT PACKAGE

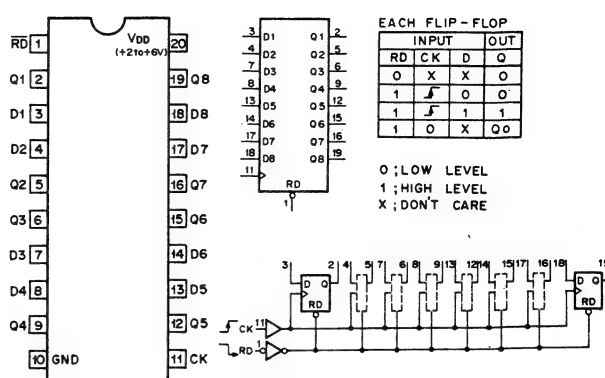
C-MOS QUAD D-TYPE FLIP-FLOPS WITH RESET
- TOP VIEW -



TYPE	VDD
TC74AC175F	+2 to +5.5V
74ACT175 TYPE	+4.5 to +5.5V
OTHER TYPES	+2 to +6V

SN74HC273AN (TI)

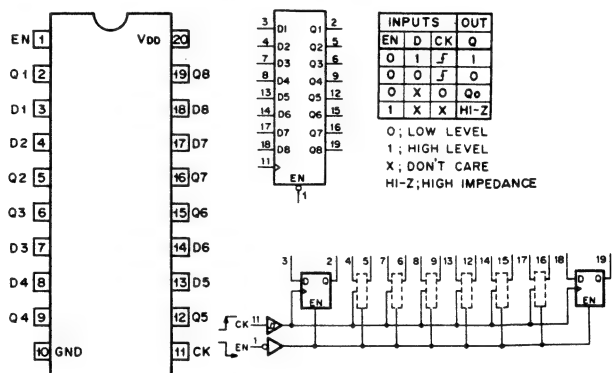
C-MOS OCTAL D-TYPE FLIP-FLOPS WITH RESET
- TOP VIEW -



SN74HC374AN (TI)

SN74HCT374AN (TI)

C-MOS 3-STATE OCTAL D-TYPE FLIP-FLOP
- TOP VIEW -

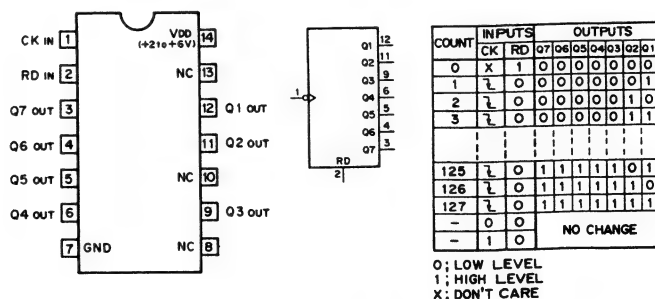


NOTE :

TYPE	V _{DD}
74AC/74HC	+2 to +6V
74ACT/74HCT	+5V

SN74HC4024N (TI)

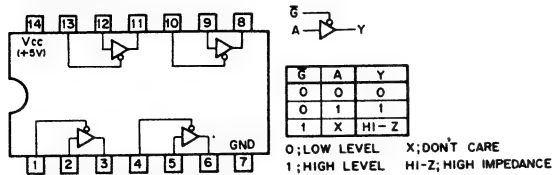
C-MOS 7-BIT BINARY COUNTERS
- TOP VIEW -



0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE

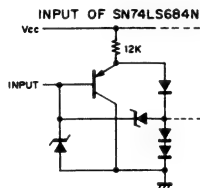
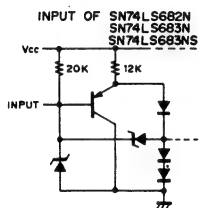
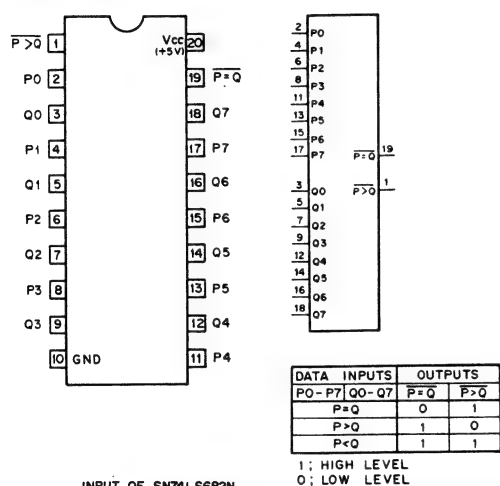
SN74LS125AN (TI)

TTL BUS BUFFER GATES WITH 3-STATE OUTPUTS
- TOP VIEW -



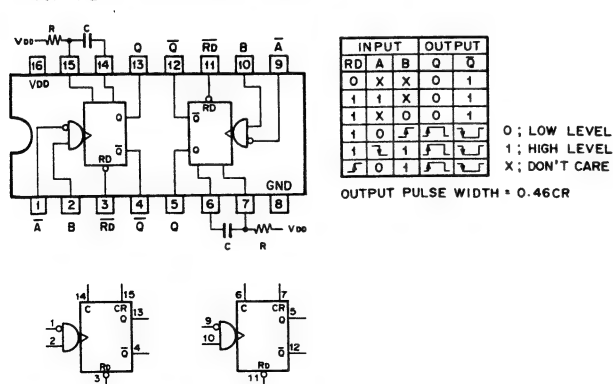
SN74LS682N (TI)

TTL 8-BIT MAGNITUDE COMPARATOR
WITH TOTEM-POLE OUTPUTS
- TOP VIEW -



TC74HC123AP (TOSHIBA)

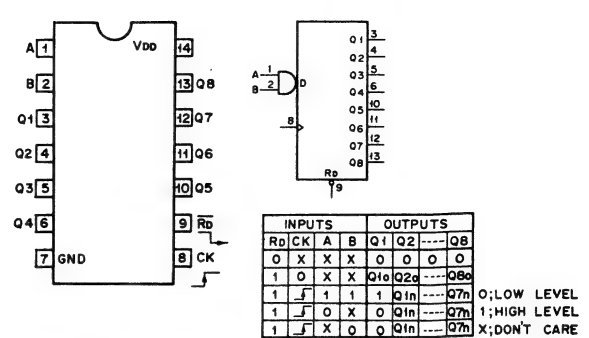
C-MOS DUAL RETRIGGERABLE MONOSTABLE MULTIVIBRATORS
- TOP VIEW -



TYPE	V _{DD}
TC74HCT123AF	+5V
OTHER TYPES	+2 to +6V

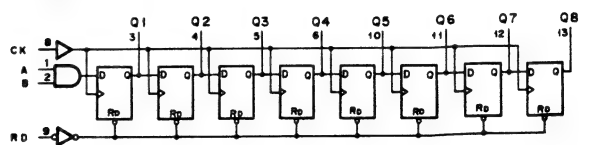
TC74AC164P (TOSHIBA)

C-MOS 8-BIT SERIAL-IN/PARALLEL-OUT SHIFT REGISTER
- TOP VIEW -



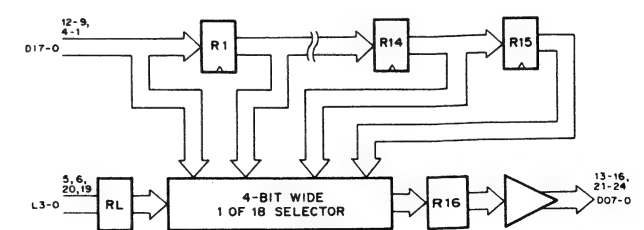
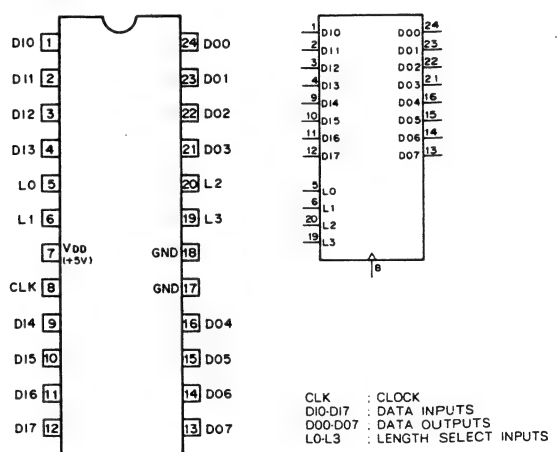
NOTE:

TYPE	V _{DD}
TC74AC164 TYPE	+2 to +5.5V
OTHER TYPES	+2 to +6V

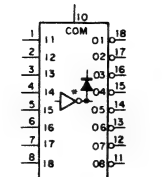
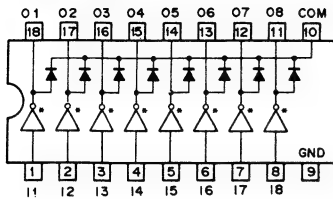


TMC2111B2C (TRW)

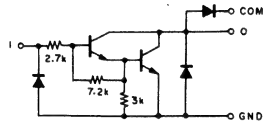
C-MOS VARIABLE-LENGTH SHIFT REGISTER
- TOP VIEW -



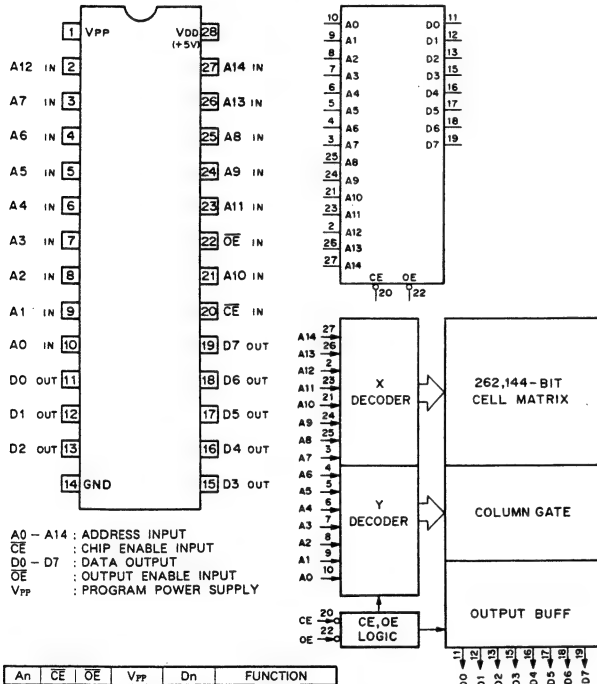
TD62083AP (TOSHIBA)

DARLINGTON DRIVER
- TOP VIEW -

* ; OPEN COLLECTOR



TMS27C256-15JL (TI)

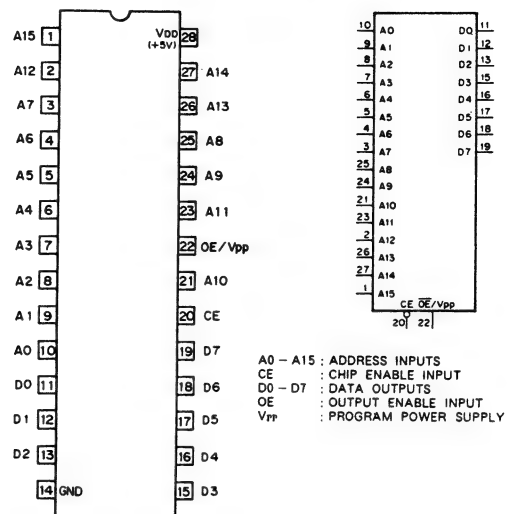
C-MOS 256K(32Kx8)-BIT ERASABLE PROM WITH 3-STATE OUTPUTS
- TOP VIEW -

A0 - A14 : ADDRESS INPUT
CE : CHIP ENABLE INPUT
D0 - D7 : DATA OUTPUT
OE : OUTPUT ENABLE INPUT
VPP : PROGRAM POWER SUPPLY

A _n	CE	OE	V _{PP}	D _n	FUNCTION
A _n	0	0	+5V	D _{OUT}	READ
A _n	0	1	+5V	HI-Z	OUTPUT DISABLE
X	1	X	+5V	HI-Z	STANDBY
A _n	0	1	+21V	D _{IN}	PGM
A _n	0	0	+21V	D _{OUT}	PGM VERIFY
X	1	1	+21V	HI-Z	PGM INH

0 : LOW LEVEL
1 : HIGH LEVEL
X : DON'T CARE
HI-Z : HIGH IMPEDANCE

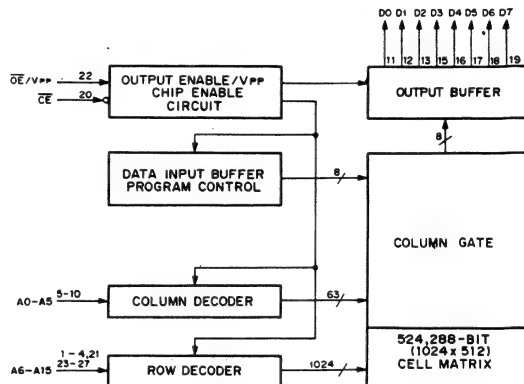
TMS27C512-20JL (TI)

C-MOS 512K(65,536x8 = 524,288)-BIT ERASABLE PROM
- TOP VIEW -

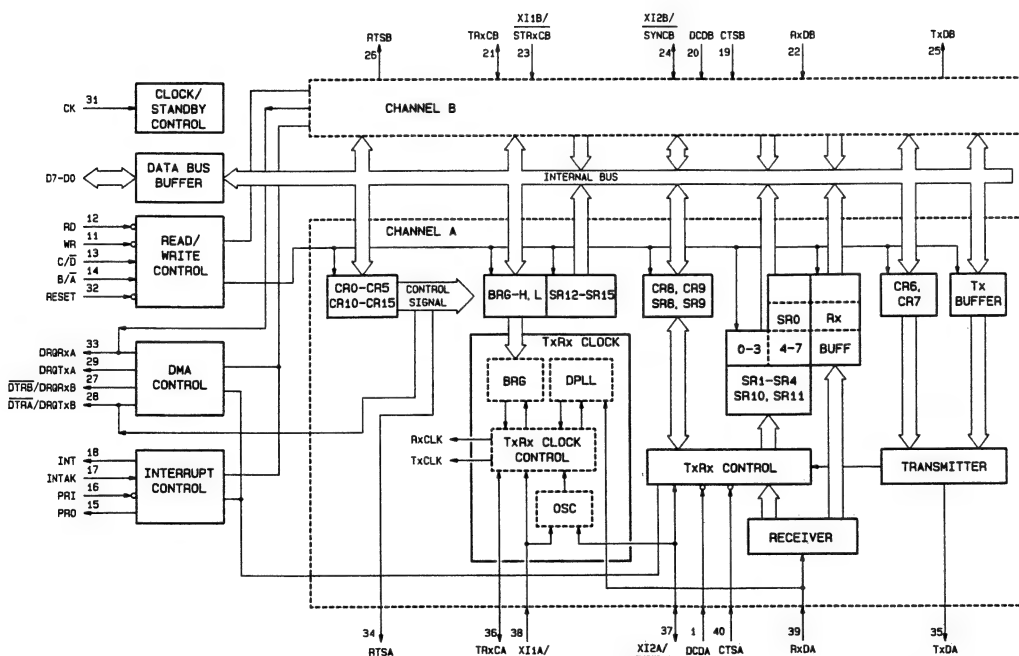
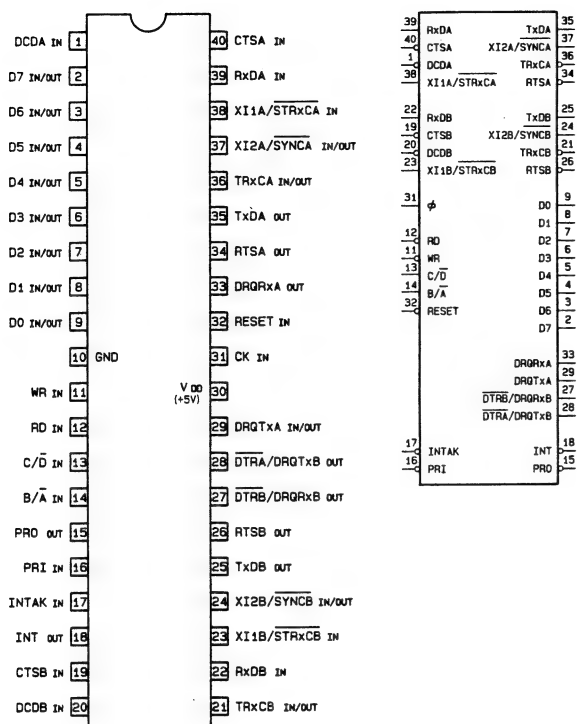
A0 - A15 : ADDRESS INPUTS
CE : CHIP ENABLE INPUT
D0 - D7 : DATA OUTPUTS
OE : OUTPUT ENABLE INPUT
VPP : PROGRAM POWER SUPPLY

A _n	CE	OE/V _{PP}	V _{DD}	D _n	FUNCTION
A _{IN}	0	0	+5V	D _{OUT}	READ
A _{IN}	0	1	+5V	HI-Z	OUTPUT DISABLE
X	1	X	+5V	HI-Z	STANDBY
A _{IN}	0	+12.5V	+6V	D _{IN}	PGM
A _{IN}	0	0	+6V	D _{OUT}	PGM VERIFY
X	1	+12.5V	+6V	HI-Z	PGM INH

0 : LOW LEVEL
1 : HIGH LEVEL
X : DON'T CARE
HI-Z : HIGH IMPEDANCE



UPD72001C-11 (NEC) (CLOCK FREQUENCY: 11MHz)
C-MOS ADVANCED MULTI-PROTOCOL SERIAL CONTROLLER
- TOP VIEW -



INPUTS				FUNCTION
WR	RD	B/A	C/D	
0	1	0	0	CHANNEL A WRITE (Tx/D)
1	0	0	0	CHANNEL A READ (Rx/D)
0	1	0	1	CHANNEL B WRITE (CONTROL REGISTER)
1	0	0	1	CHANNEL B READ (STATUS REGISTER)
1	1	X	X	HIGH-IMPEDANCE
0	0	X	X	INHIBIT

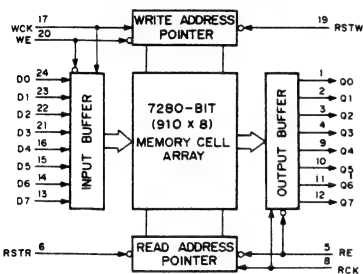
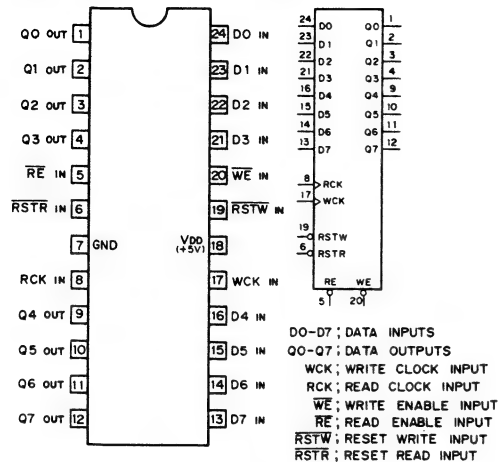
0: LOW LEVEL
1: HIGH LEVEL
X: DON'T CARE.

CK : SYSTEM CLOCK INPUT
WR : WRITE ENABLE INPUT
RD : READ ENABLE INPUT
B/A : CHANNEL B/A SELECT INPUT
C/D : CONTROL/DATA SELECT INPUT
D0-D7 : DATA BUS INPUTS/OUTPUTS
INT : INTERRUPT OUTPUT
INTAK : INTERRUPT ACKNOWLEDGE INPUT
PRI : PRIORITY INPUT
DRQTB: DMA REQUEST Tx/B OUTPUT
DRQRA: DMA REQUEST Rx/A OUTPUT
PRO : PRIORITY OUTPUT

DTRA/DRQTB: DATA TERMINAL READY A/DMA REQUEST Tx/B OUTPUT
DTRB/DRQRB: DATA TERMINAL READY B/DMA REQUEST Rx/B OUTPUT
CTSA, CTSB : CLEAR TO SEND A/B INPUT
DCDA, DCDB : DATA CARRIER DETECT A/B INPUT
RTSA, RTSB : REQUEST TO SEND A/B OUTPUT
RESET : RESET INPUT

UPD42101C-3 (NEC)

C-MOS 7K (910x8)-BIT FIFO MEMORY
- TOP VIEW -



DIODE



10E-1
1SS119
S3S4M



HLMP-6300 ; RED
HLMP-6500 ; GREEN

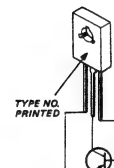


TLG123A ; GREEN

TRANSISTOR



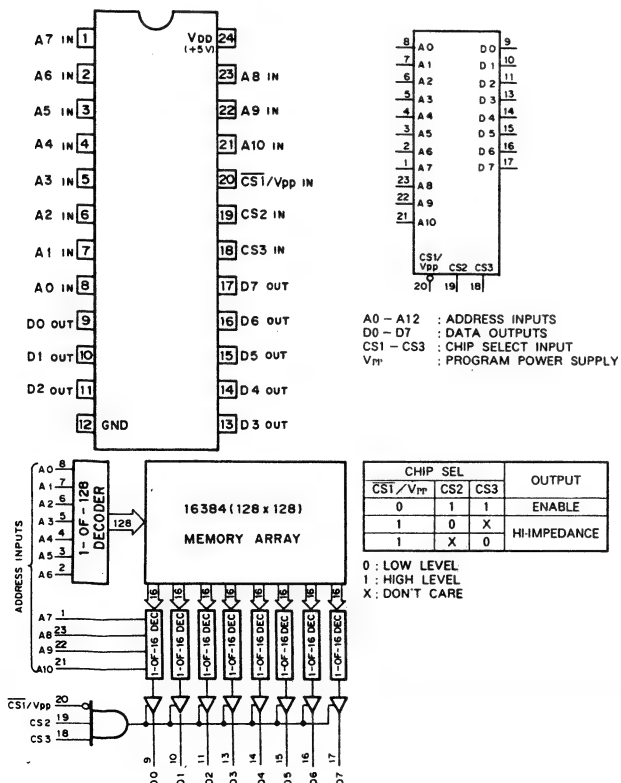
2SA952



2SB1140

WS57C291B-35S (WSI)
WS57C291B-45S (WSI)

C-MOS 16K-BIT (2048x8) HIGH SPEED ERASABLE P-ROM
- TOP VIEW -



SECTION 8
SCHEMATIC DIAGRAMS

回路図内において、REF. NOの近傍に下記記号が記載されていますが、これは生産時の部品データです。

In the schematic diagrams, the following marks are described near by reference number.
These are parts data at factory.

CAPACITOR(C)

AL	}	ELECTROLYTIC
AS		
TA	}	TANTALUM
CA	}	CERAMIC
CC		
CCS		
CM		
CS	}	MYLAR
MPS		
PP		
PS		
PT	}	DIPPED MICA
MD		
MS		MICA

RESISTOR(R)
VARIABLE RESISTOR(RV)

RC	}	CARBON
RD		
RF	}	FUSE
RN	}	METAL
RS		
RW	}	WIREWOUND

• CIRCUIT INFORMATION

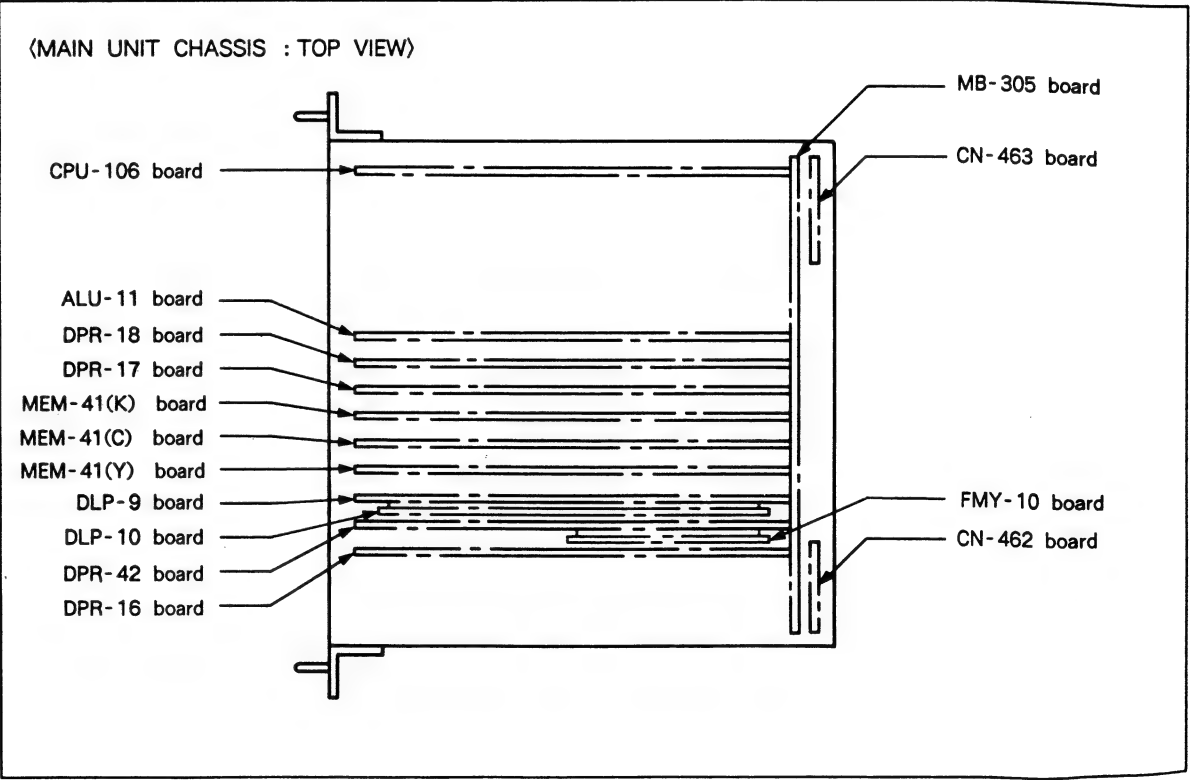
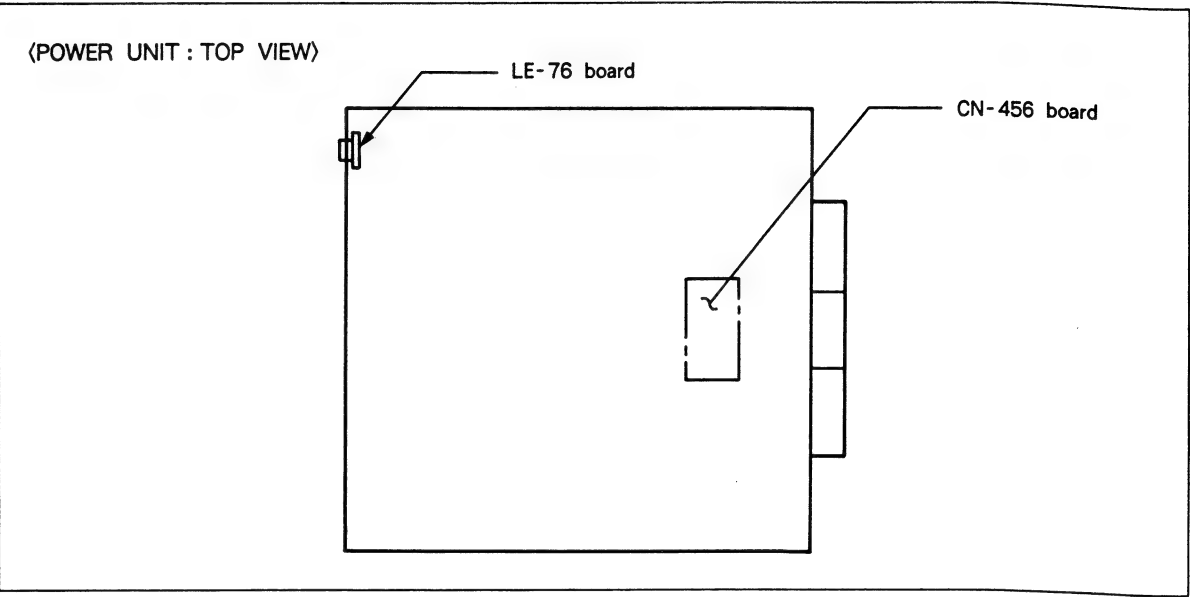
Board	Function	PAGE
ALU-11	Real-time Numeric Data Processor	8-2
CN-456	Power Supply Connector Board	8-80
CN-462	BNC Connector Board	8-82
CN-463	D SUB Connector Board	8-84
CPU-106	System Control and Communication	8-8
DLP-9	Horizontal and Vertical Low Pass Filter	8-14
DLP-10	IIR Vertical Low Pass Filter	8-26
DPR-16	Output Recursive Effect Generator and Border Generator	8-34
DPR-17	Memory Address Selector and Write Address Generator	8-44
DPR-18	Read Address Generator and Split Mirror Generator	8-52
DPR-42	Input Pixel Effect	8-60
FMY-10	Input Freez	8-70
LE-76	Power LED Board	—
MB-305	Mother Board	8-86
MEM-41	3 Field Video Memory and Interpolator	8-74

erence number.

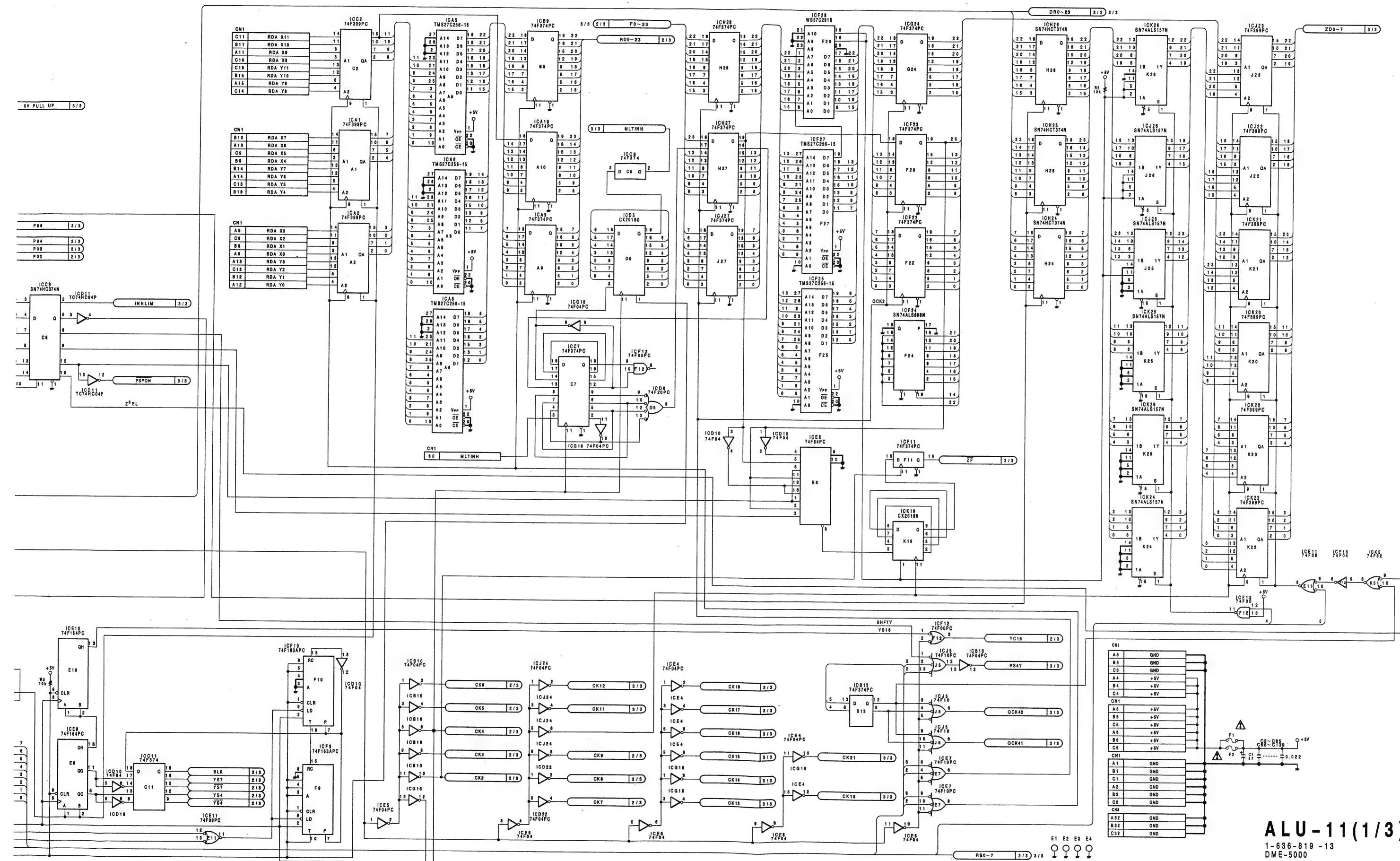
• CIRCUIT INFORMATION

Board	Function	PAGE
ALU-11	Real-time Numeric Data Processor	8-2
CN-456	Power Supply Connector Board	8-80
CN-462	BNC Connector Board	8-82
CN-463	D SUB Connector Board	8-84
CPU-106	System Control and Communication	8-8
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DPR-17	Memory Address Selector and Write Address Generator	8-44
DPR-18	Read Address Generator and Split Mirror Generator	8-52
DPR-42	Input Pixel Effect	8-60
FMY-10	Input Freez	8-70
LE-76	Power LED Board	—
MB-305	Mother Board	8-86
MEM-41	3 Field Video Memory and Interpolator	8-74

• LOCATION OF PRINTED CIRCUIT BOARDS



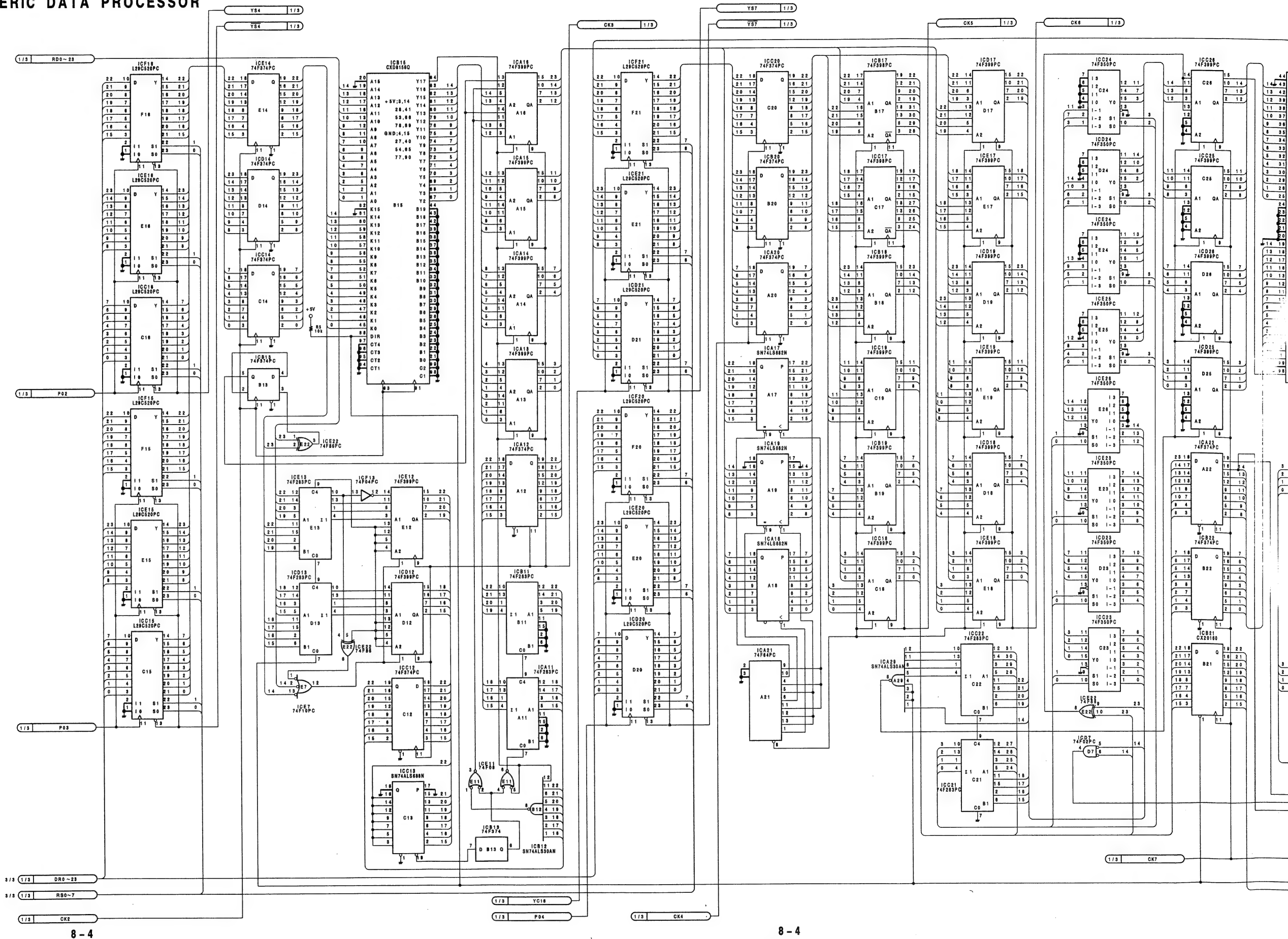
ALU-11(1/3) ALU-11(1/3)



ALU - 11 (1/3)

1-636-819 -13
DME-5000

ALU-11;REALTIME NUMERIC DATA PROCESSOR



A

B

C

D

E

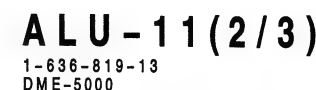
8-4

F

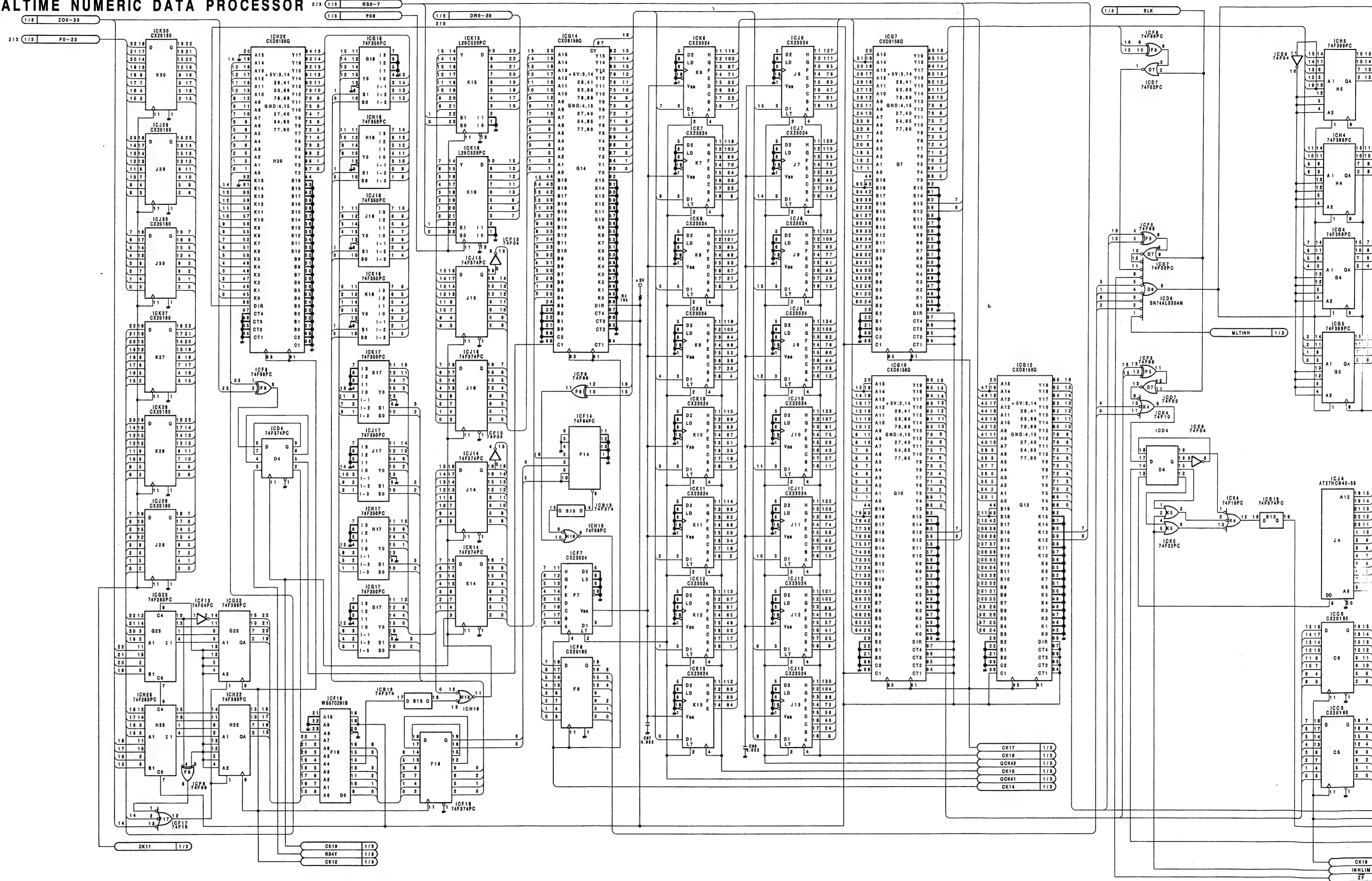
G

H

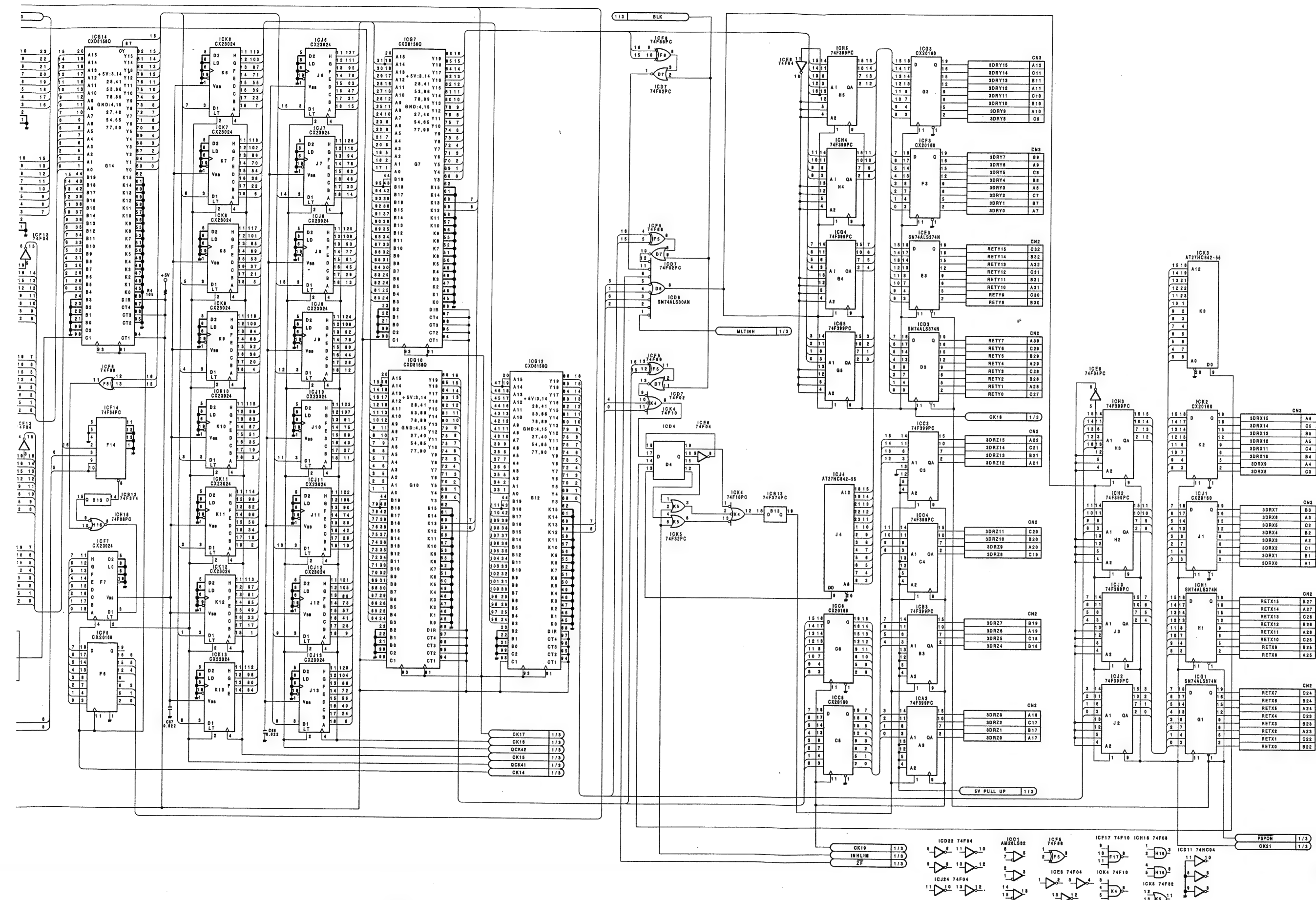
ALU-11(2/3) ALU-11(2/3)



ALU-11;REALTIME NUMERIC DATA PROCESSOR



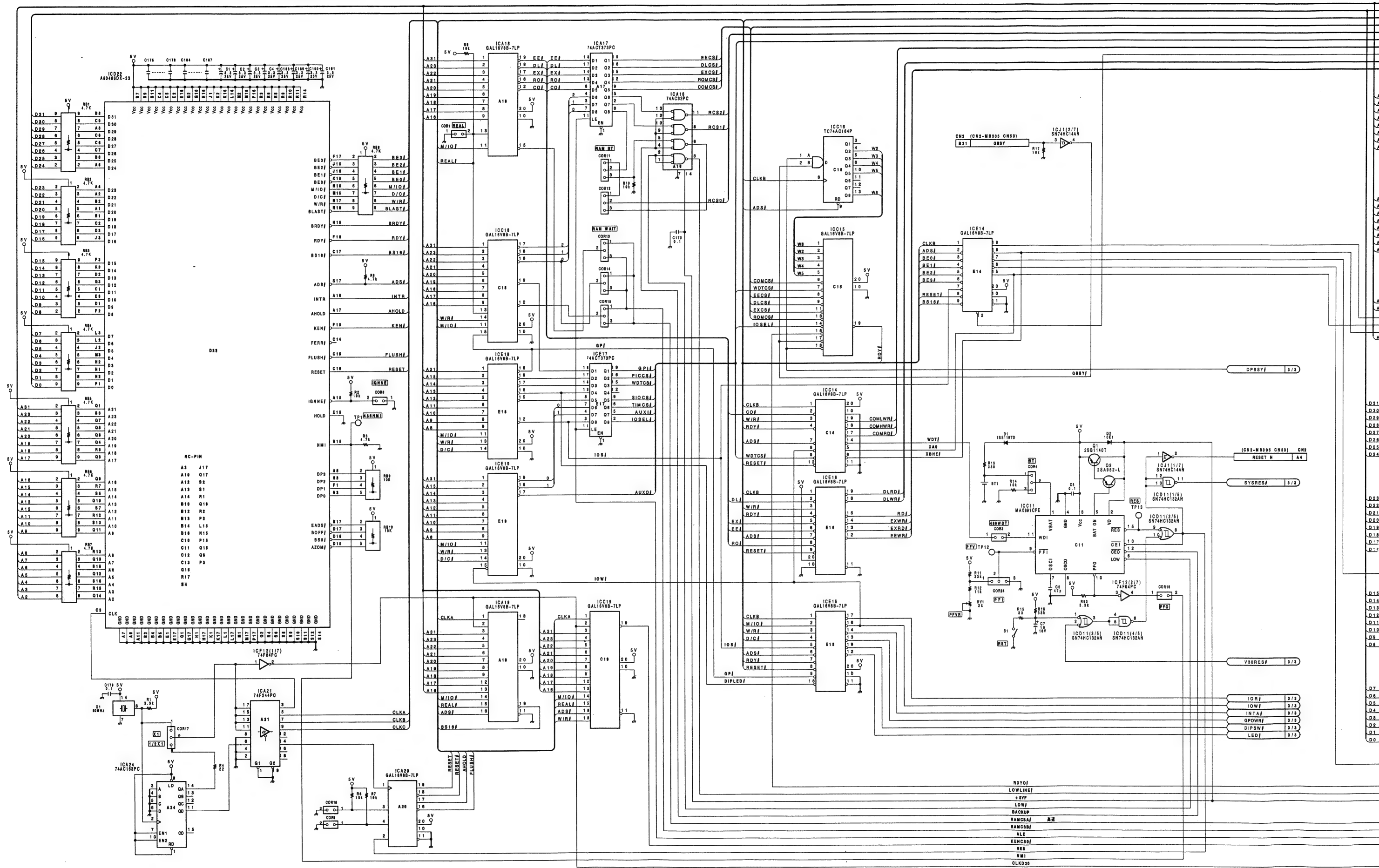
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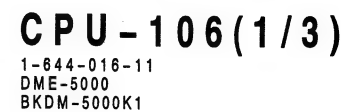


ALU-11 (3/3)

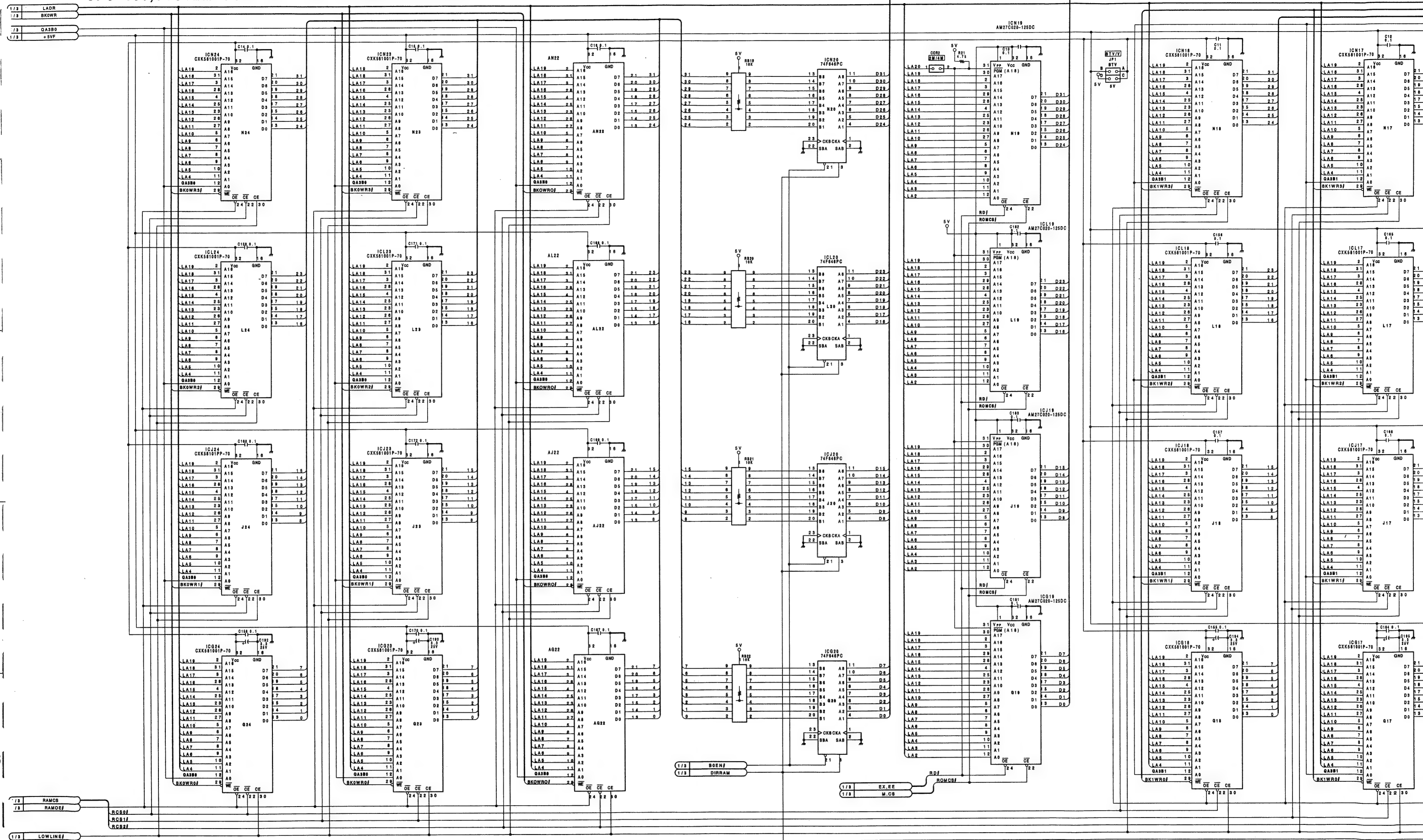
1-636-819-13
DME-5000

CPU-106;SYSTEM CONTROL AND COMMUNICATION

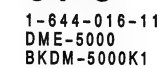




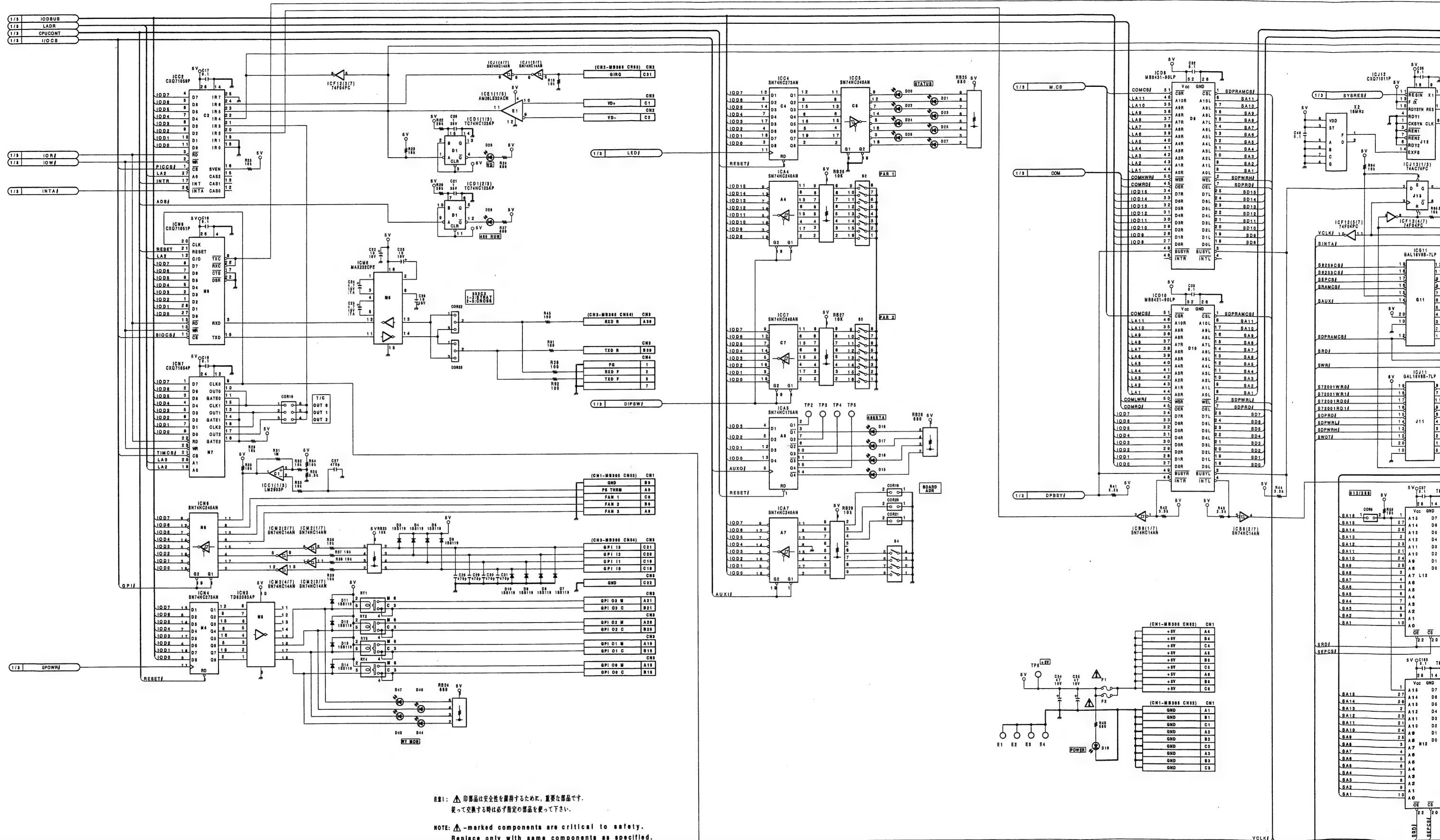
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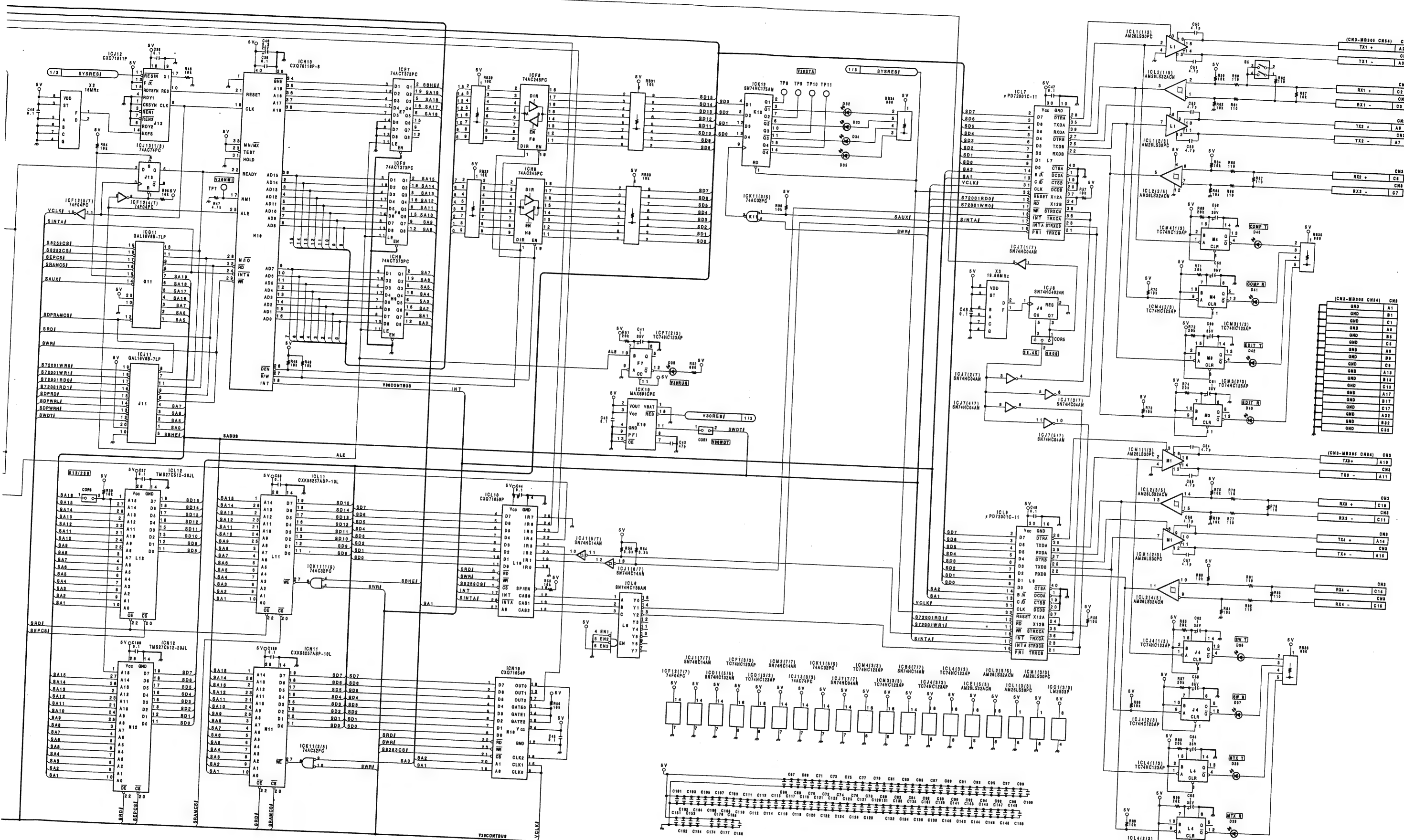


CPU-106(2/3)

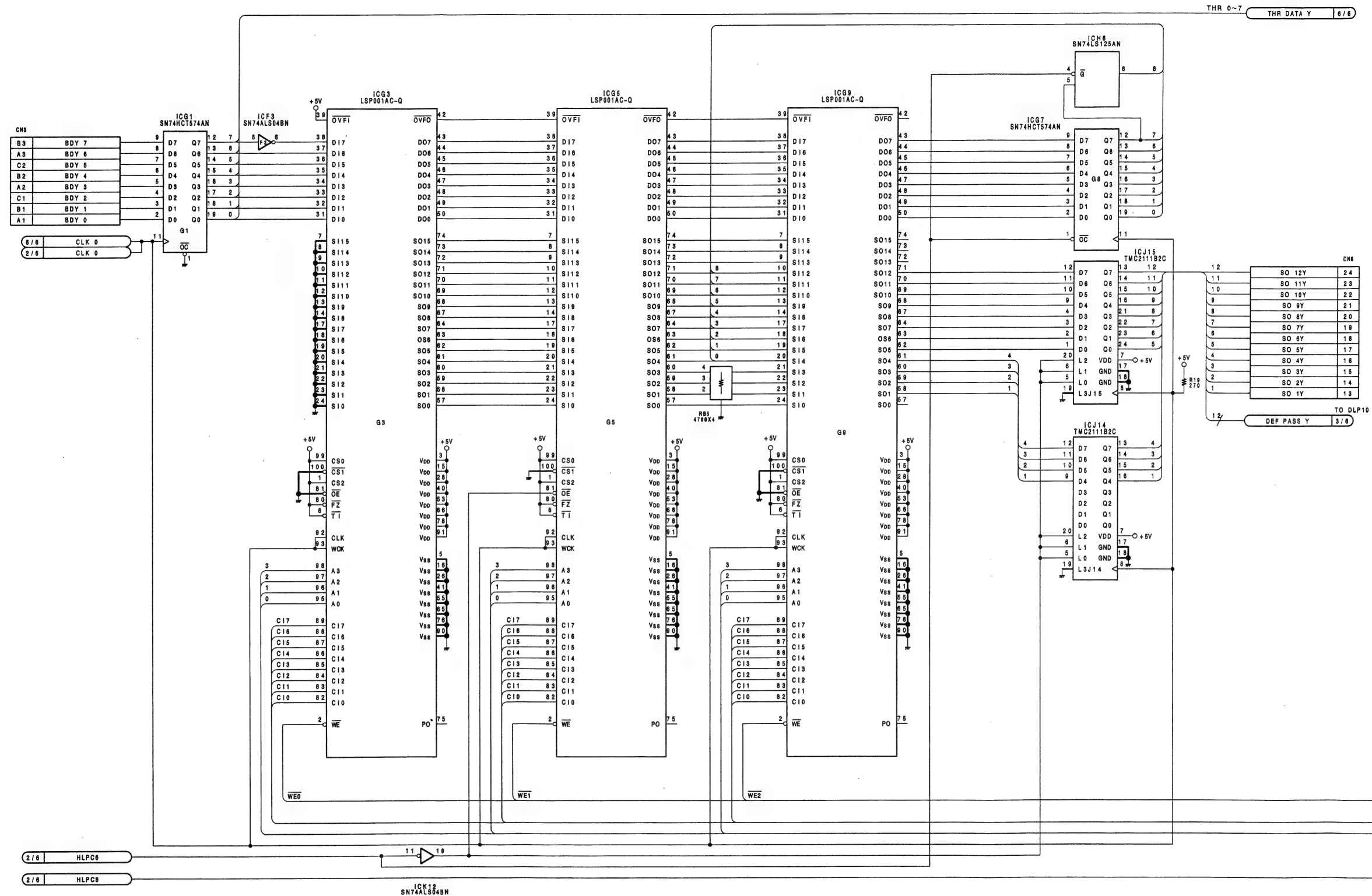


CPU-106;SYSTEM CONTROL AND COMMUNICATION





DLP-9;HORIZONTAL AND VERTICAL LOW PASS FILTER



THR DATA Y 6/6

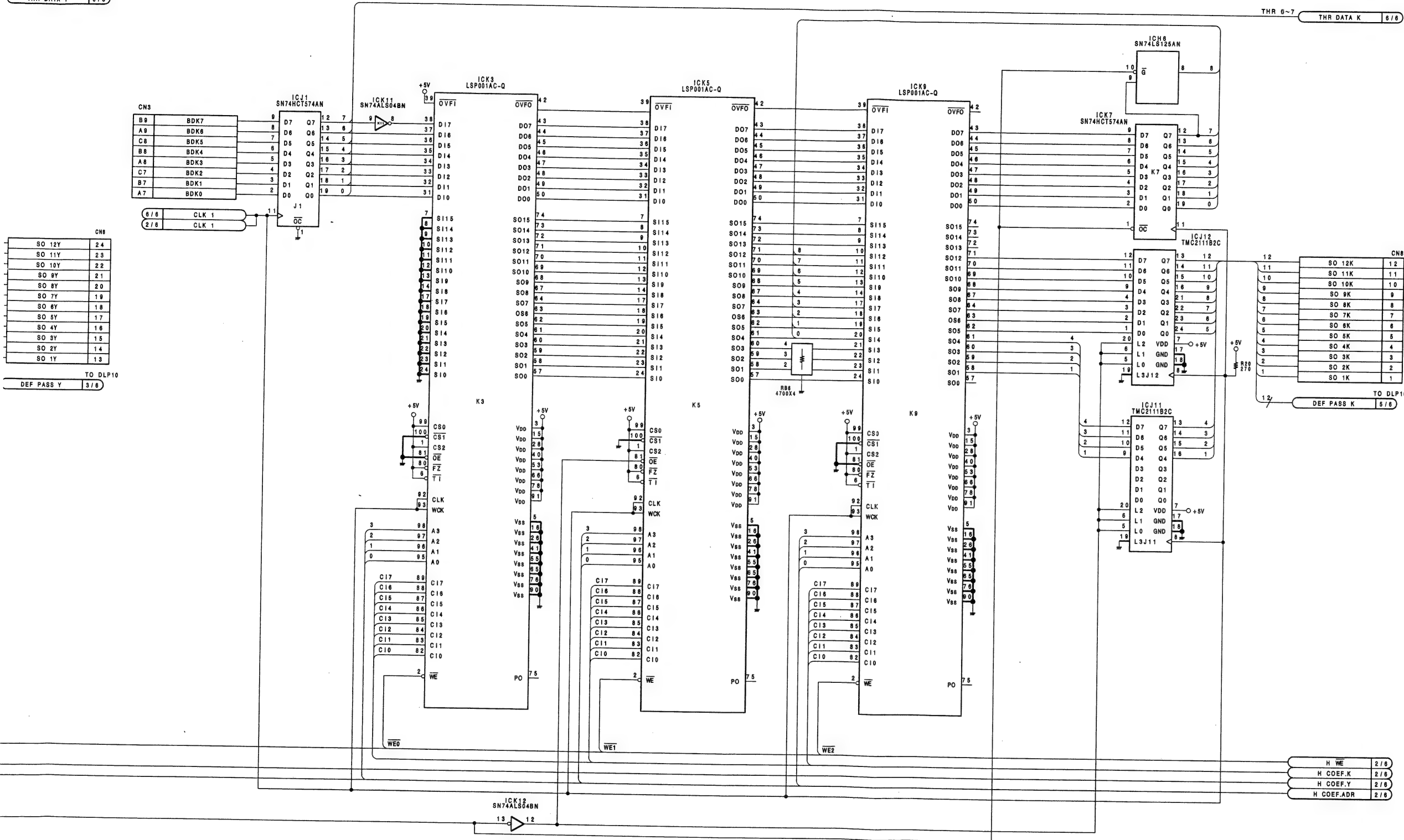
THR 0~7 THR DATA K 6/6

CN8	
SO 12Y	24
SO 11Y	23
SO 10Y	22
SO 9Y	21
SO 8Y	20
SO 7Y	19
SO 6Y	18
SO 5Y	17
SO 4Y	16
SO 3Y	15
SO 2Y	14
SO 1Y	13

TO DLP10
DEF PASS Y 3/6

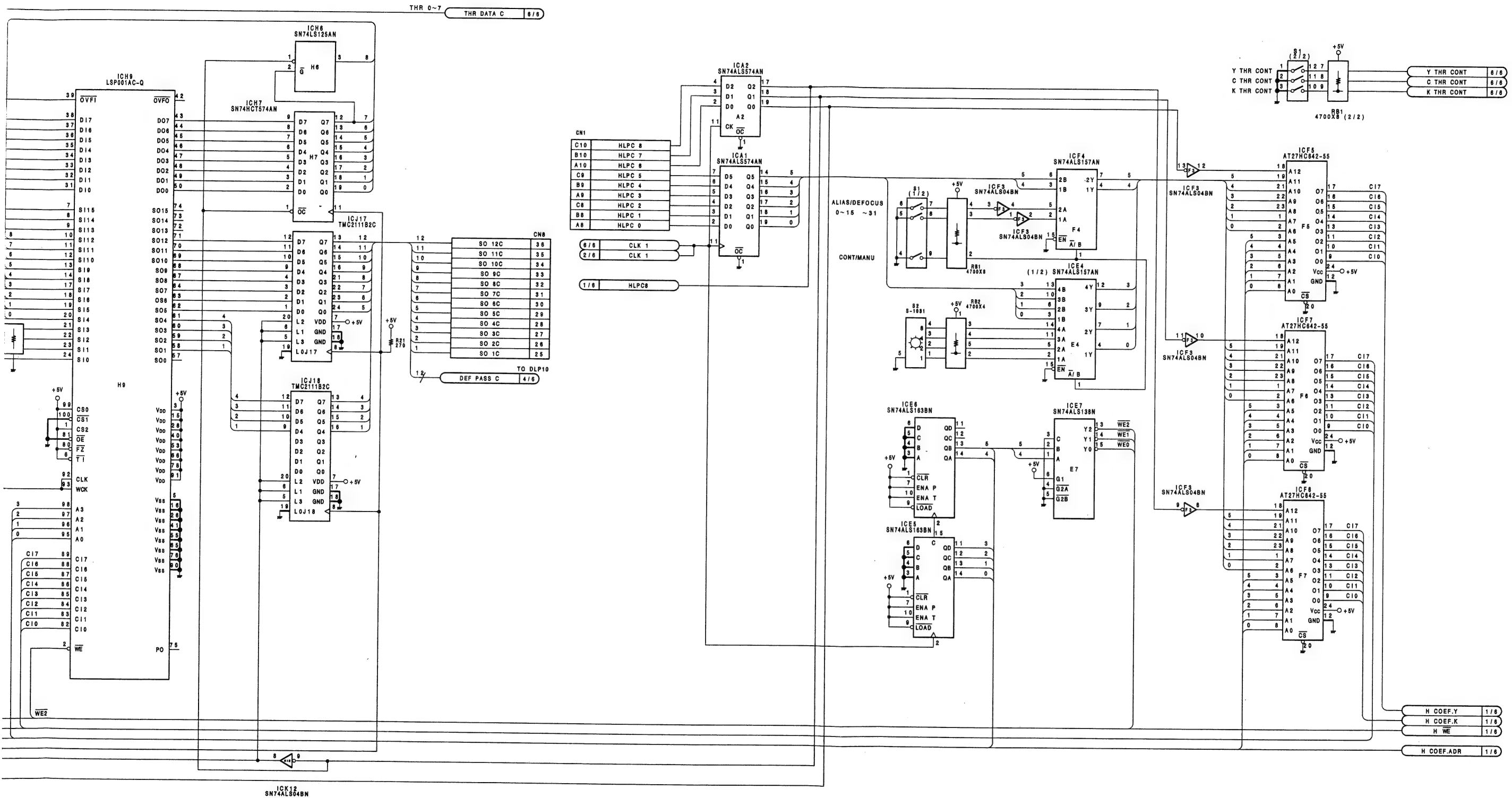
CN8	
SO 12K	12
SO 11K	11
SO 10K	10
SO 9K	9
SO 8K	8
SO 7K	7
SO 6K	6
SO 5K	5
SO 4K	4
SO 3K	3
SO 2K	2
SO 1K	1

TO DLP10
DEF PASS K 5/6

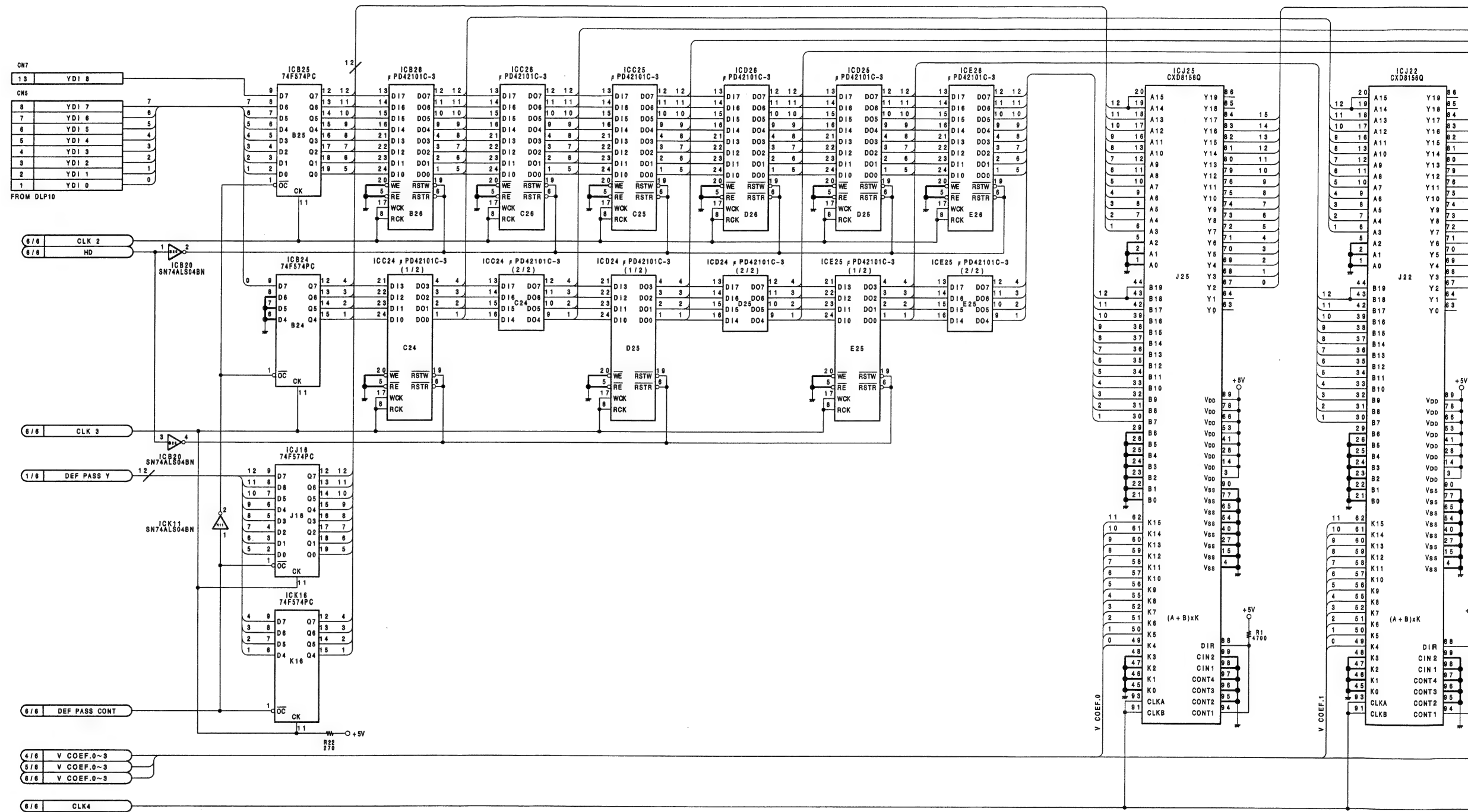


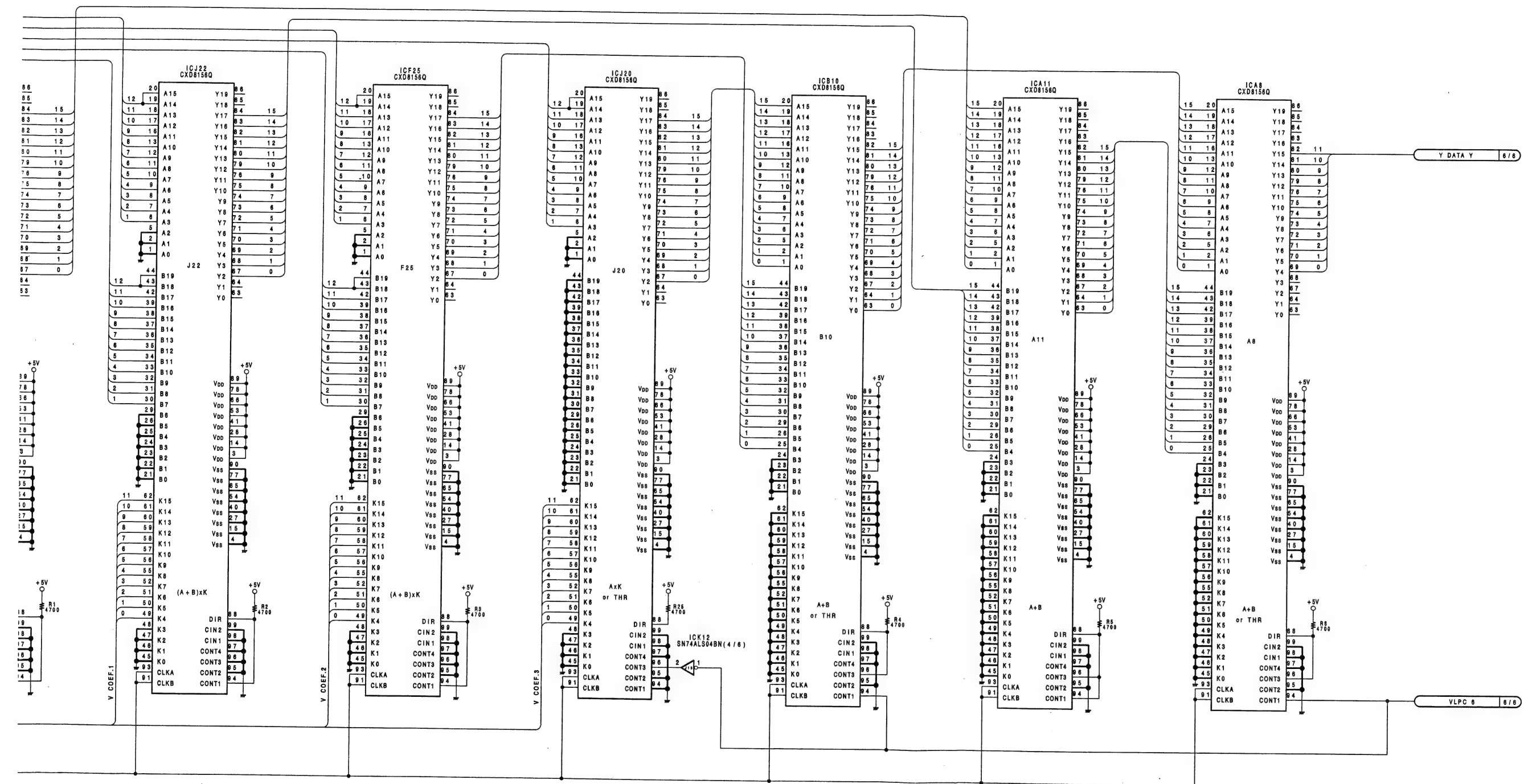
THR 0~7 THR DATA C 6 / 6



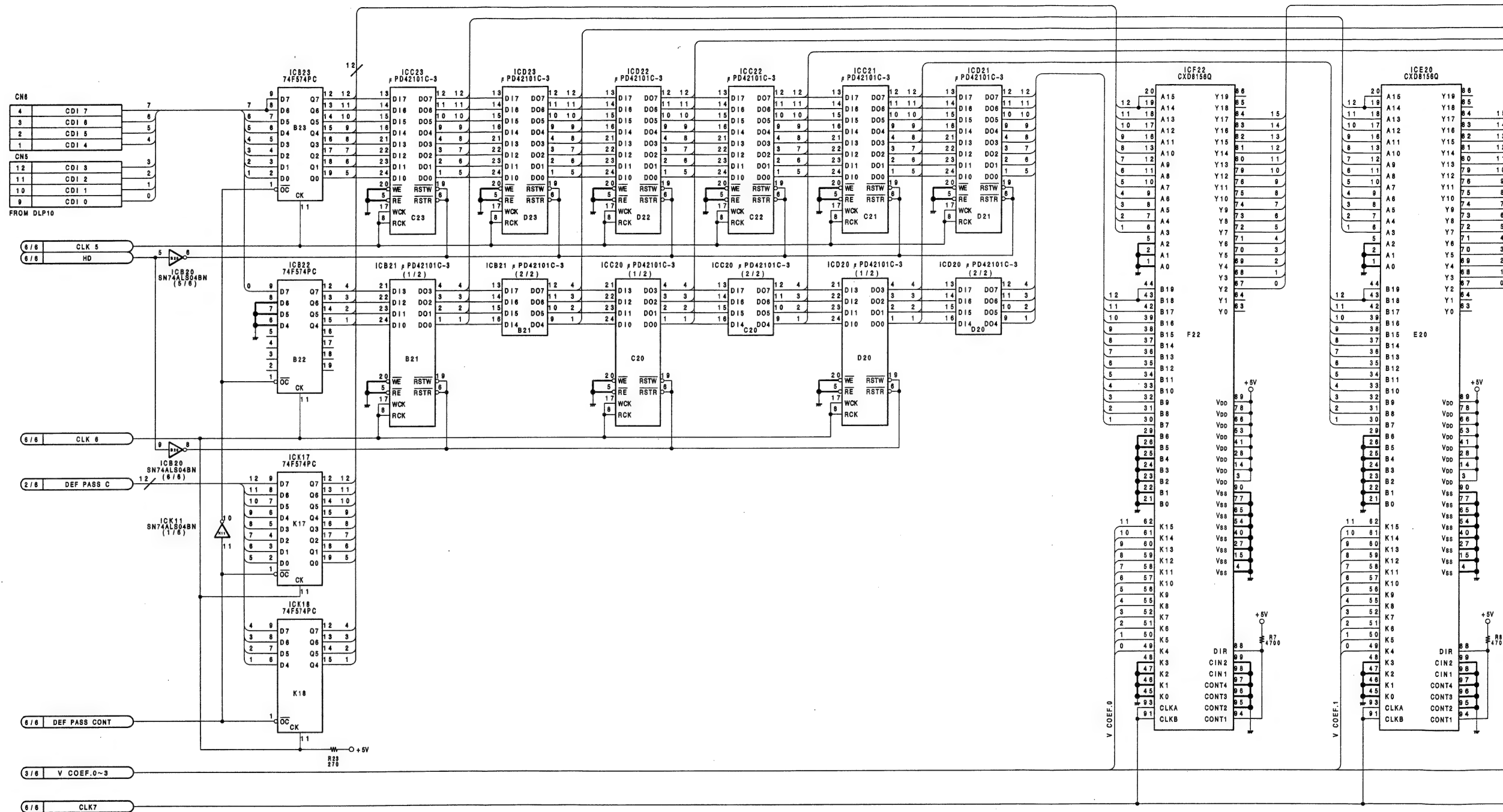


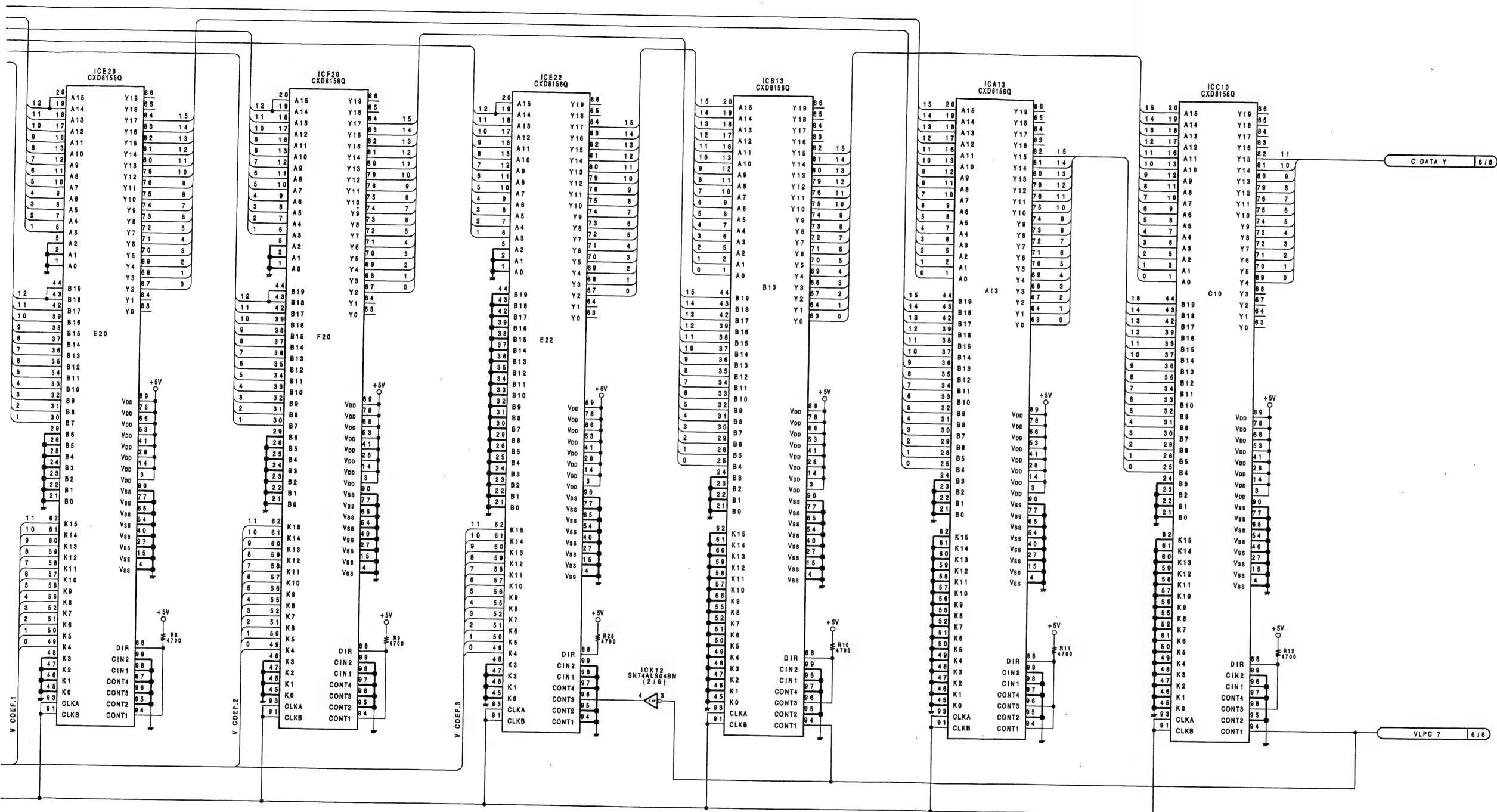
DLP-9;HORIZONTAL AND VERTICAL LOW PASS FILTER



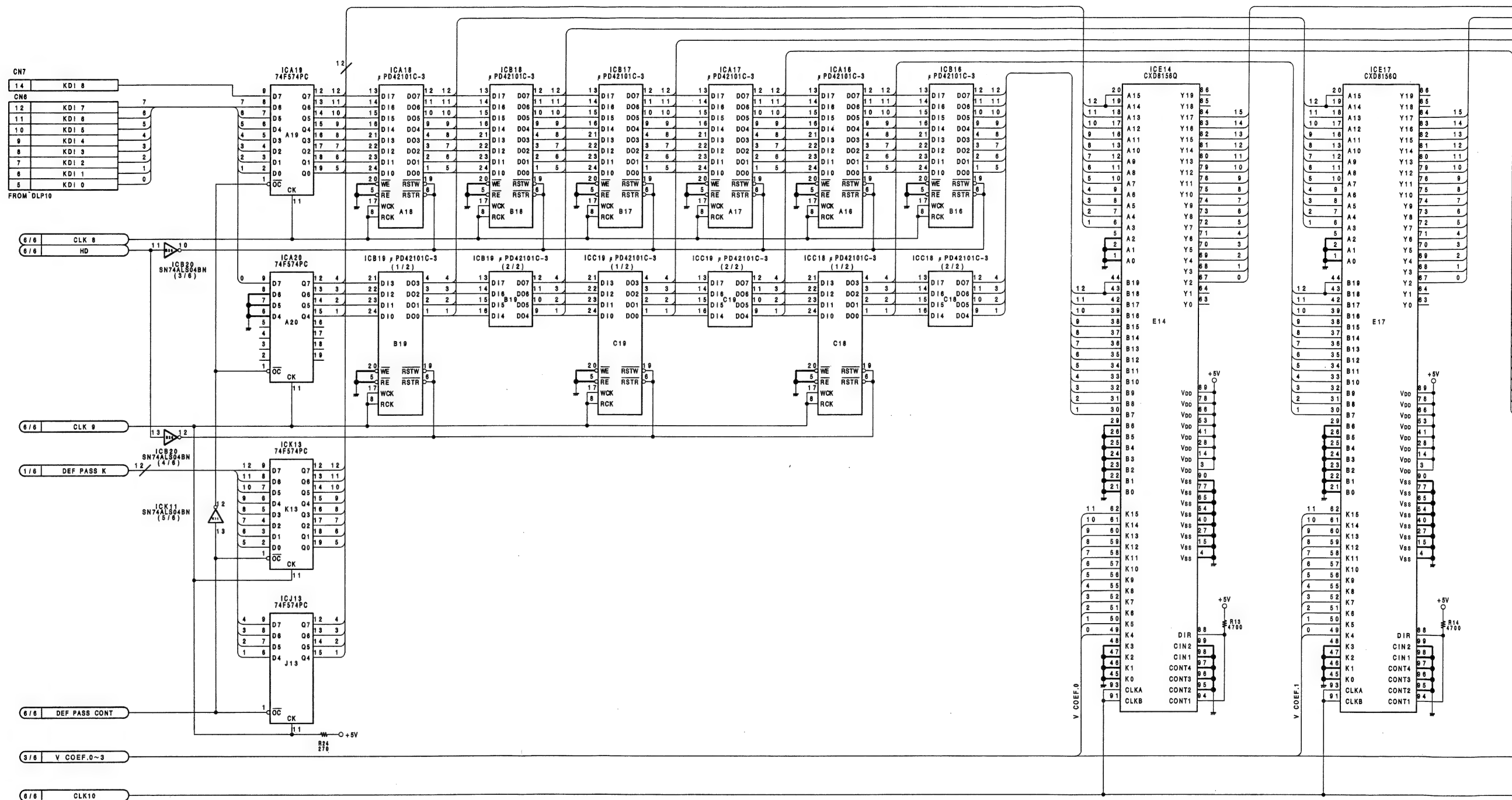


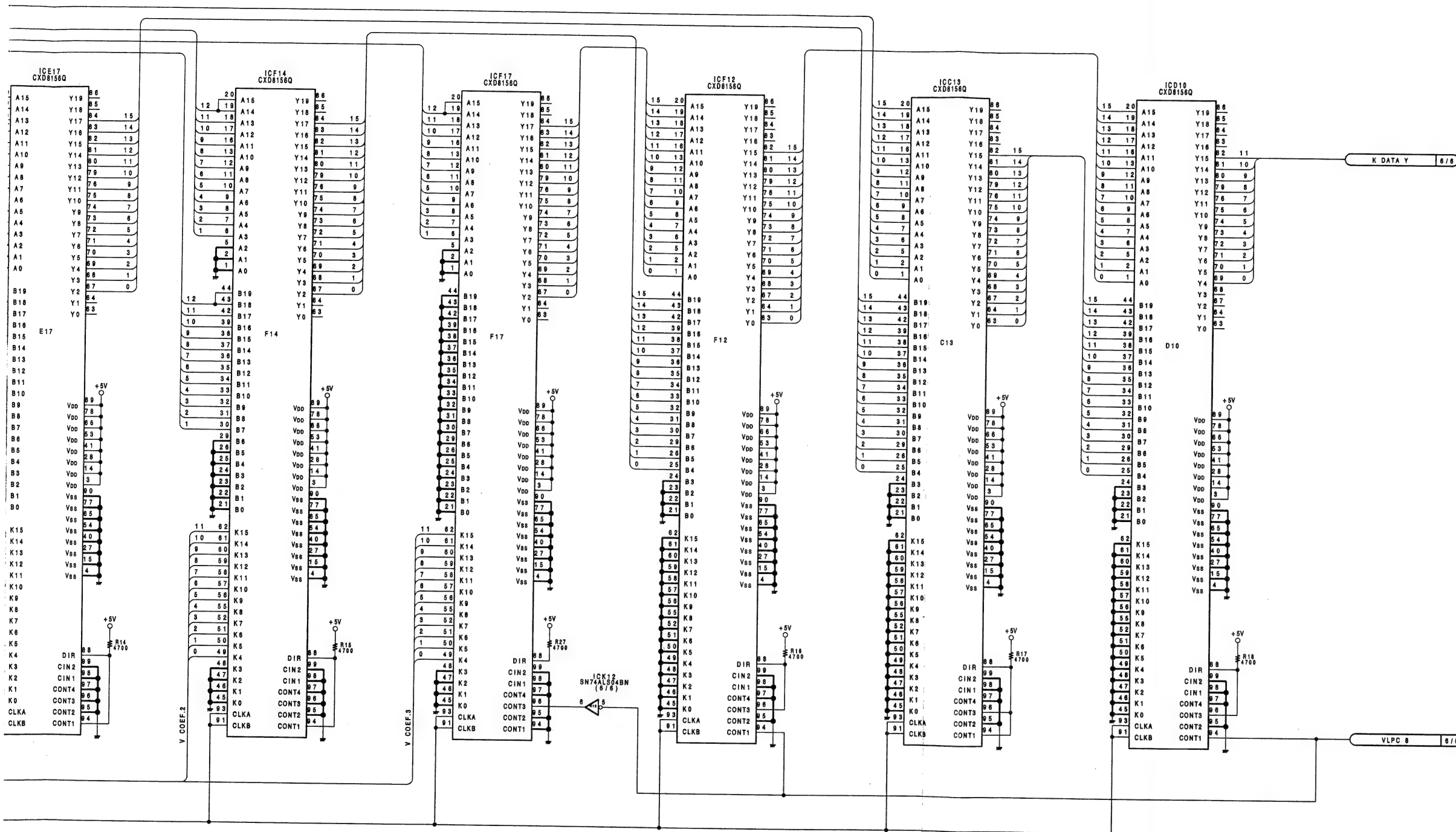
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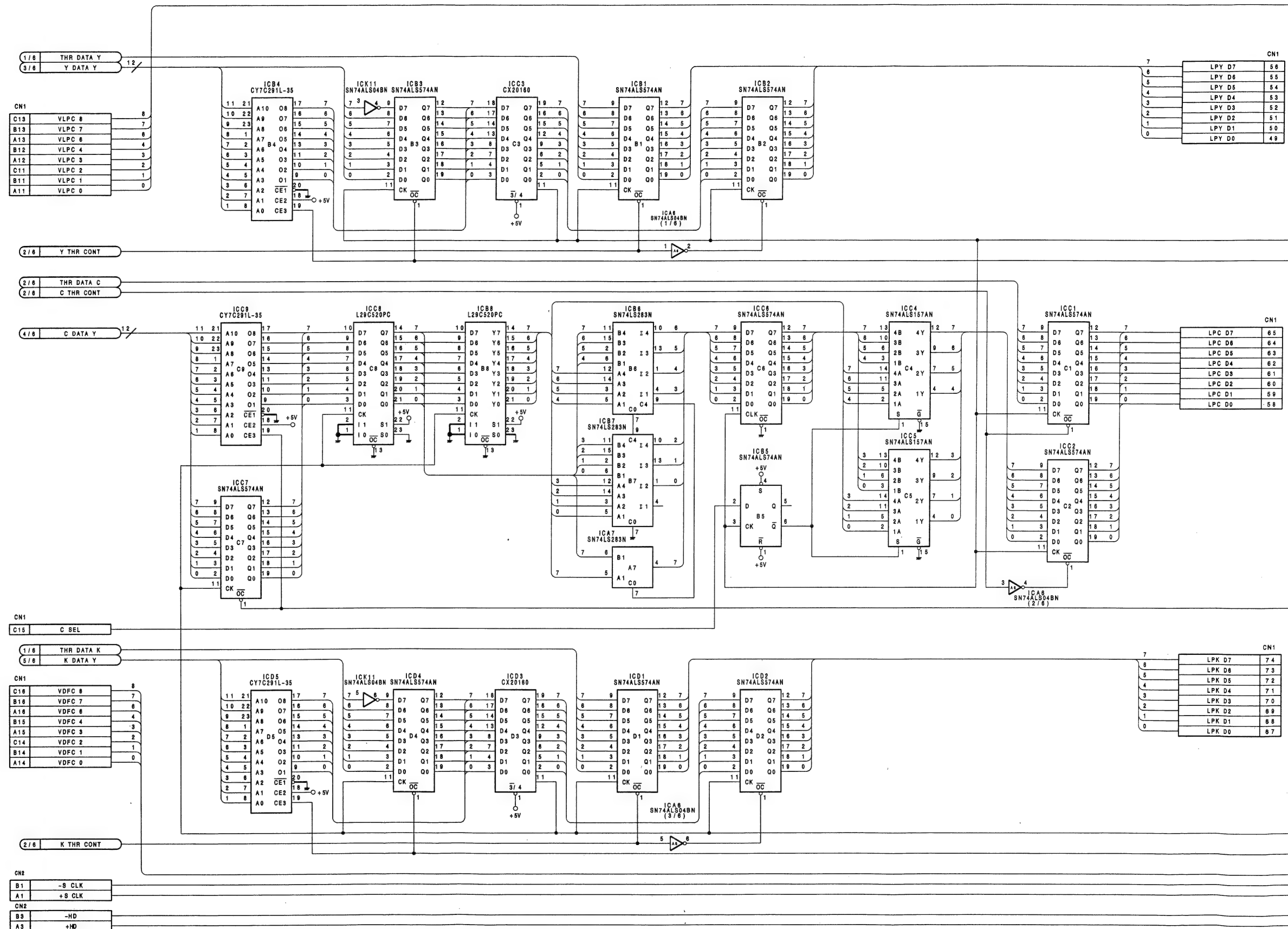


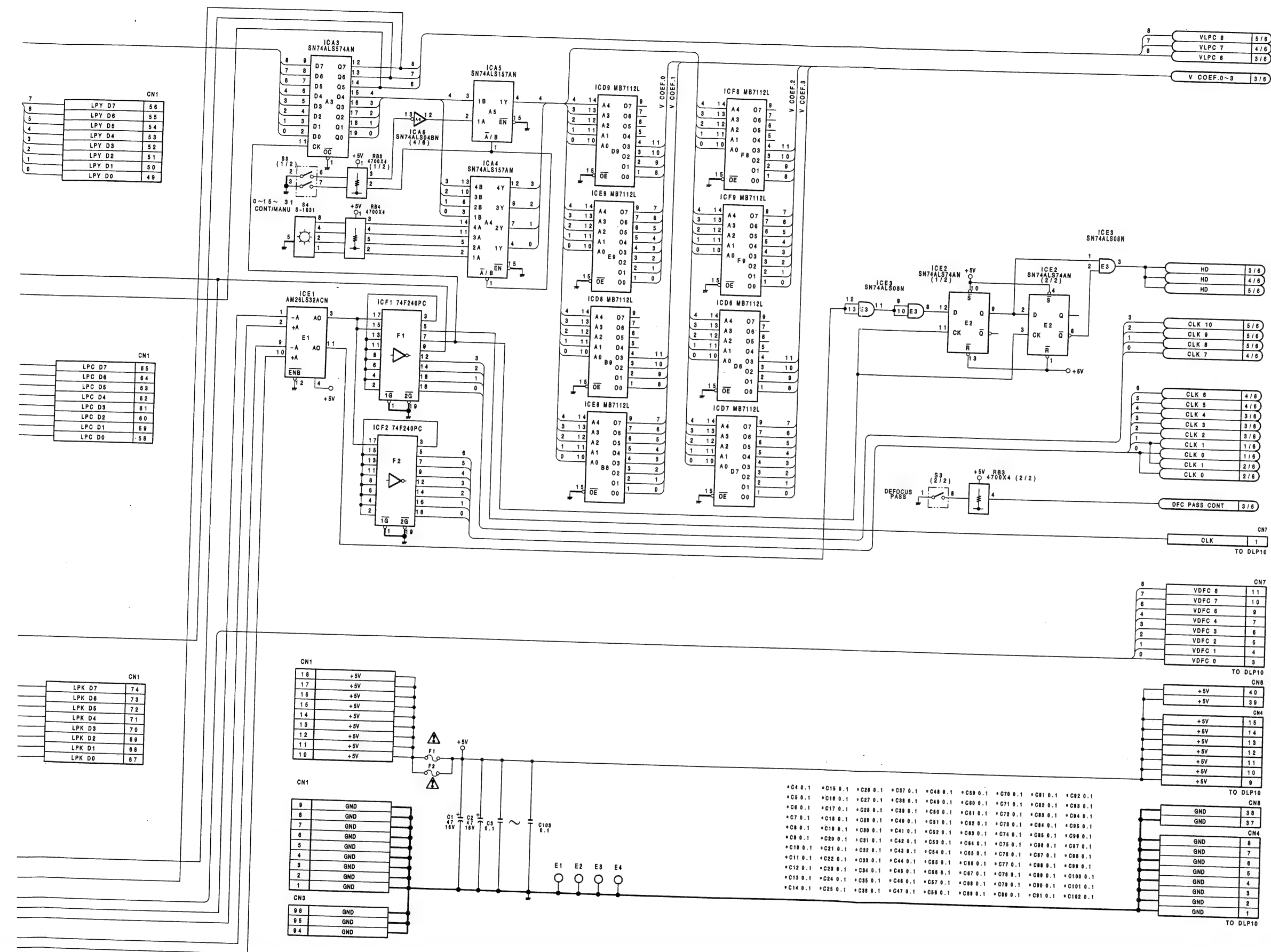
DLP-9;HORIZONTAL AND VERTICAL LOW PASS FILTER



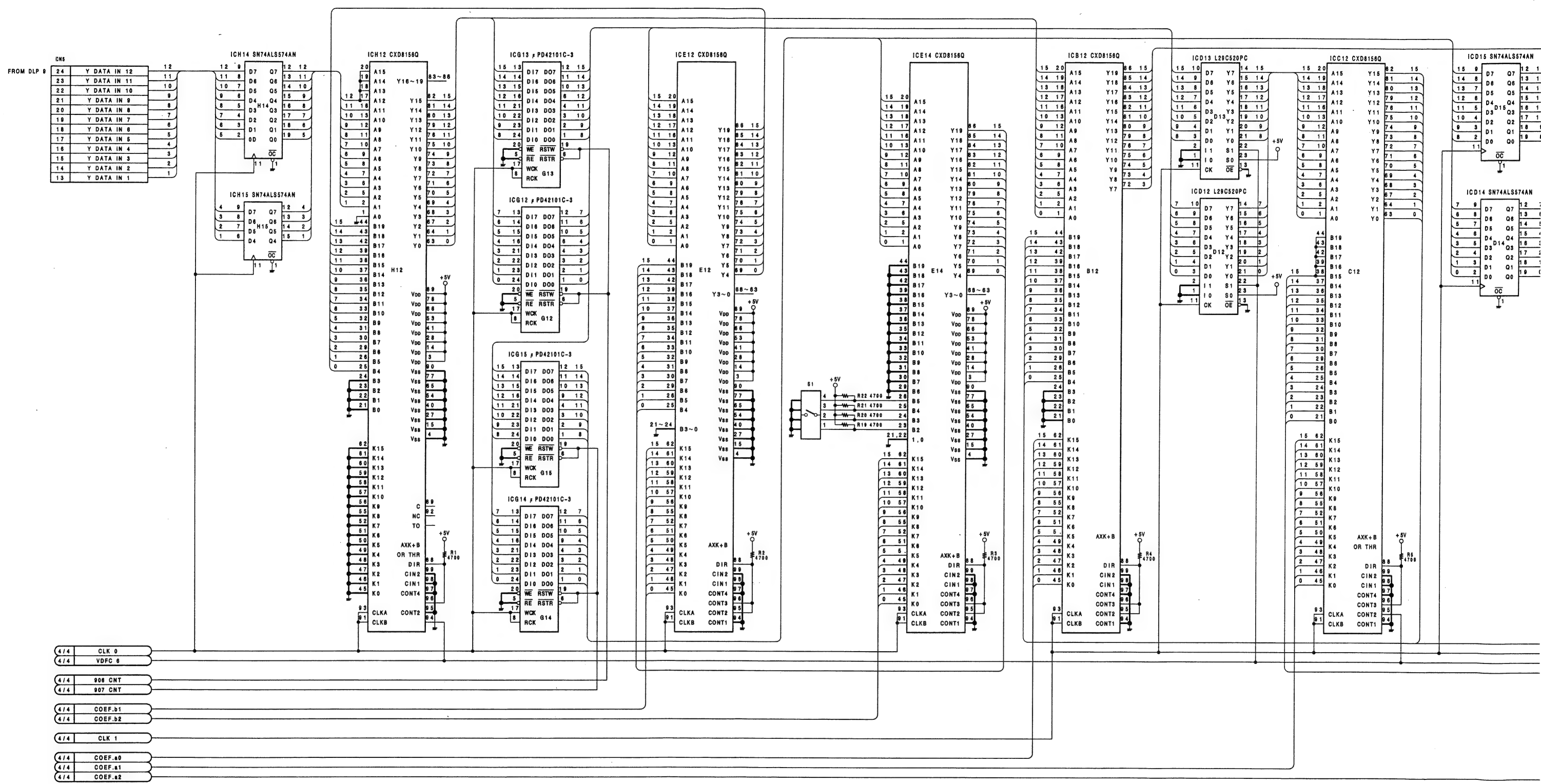


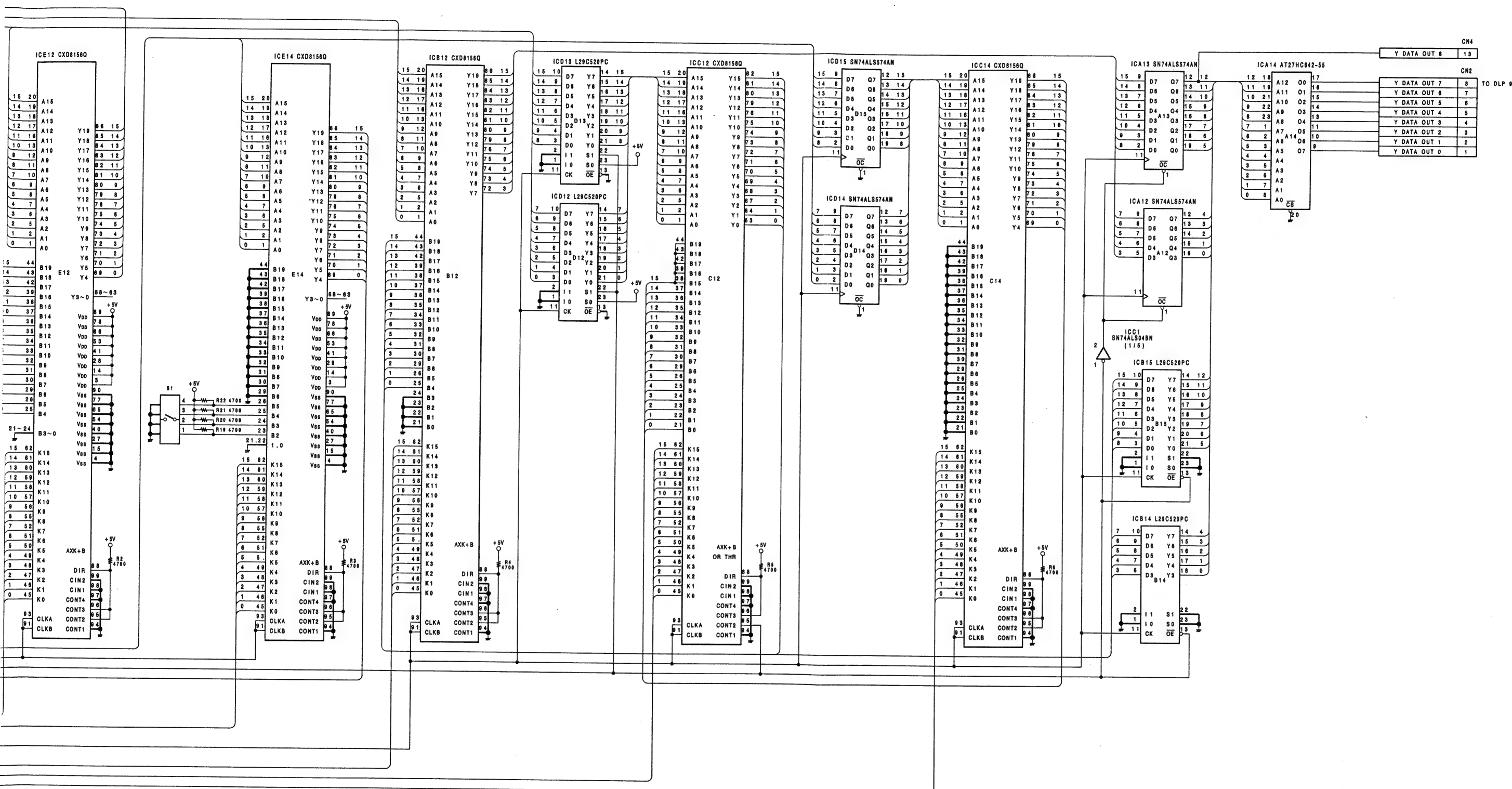
DLP-9;HORIZONTAL AND VERTICAL LOW PASS FILTER





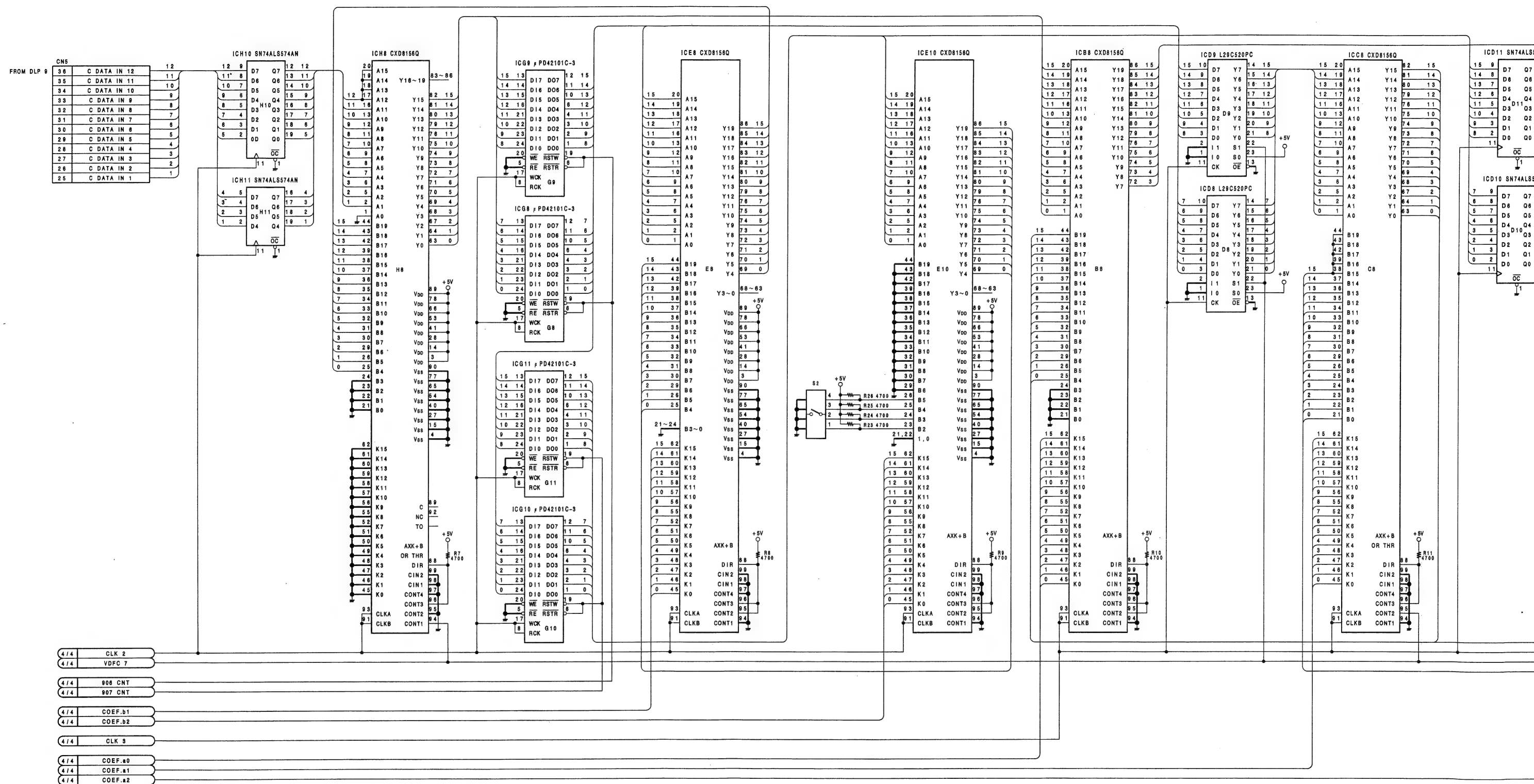
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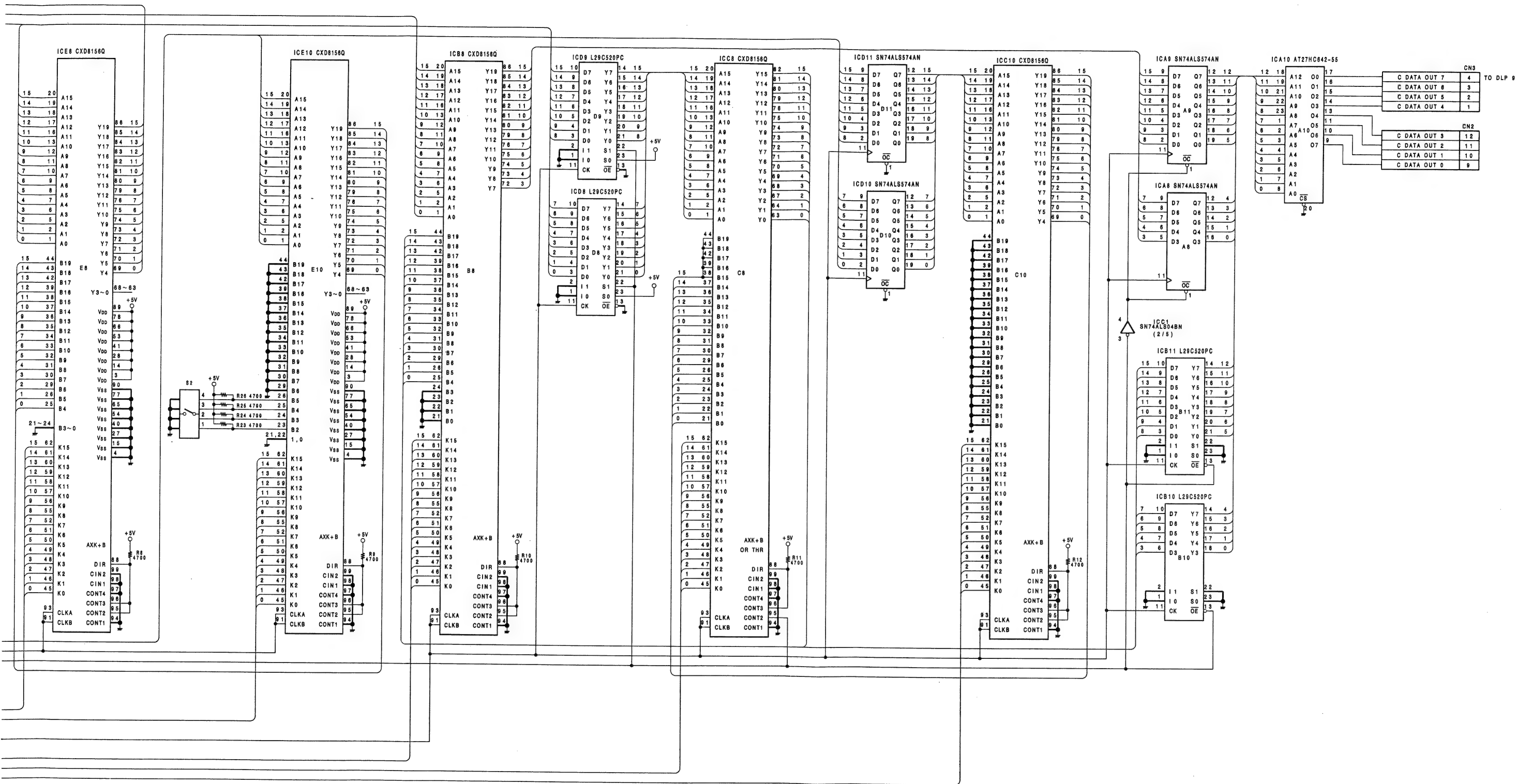




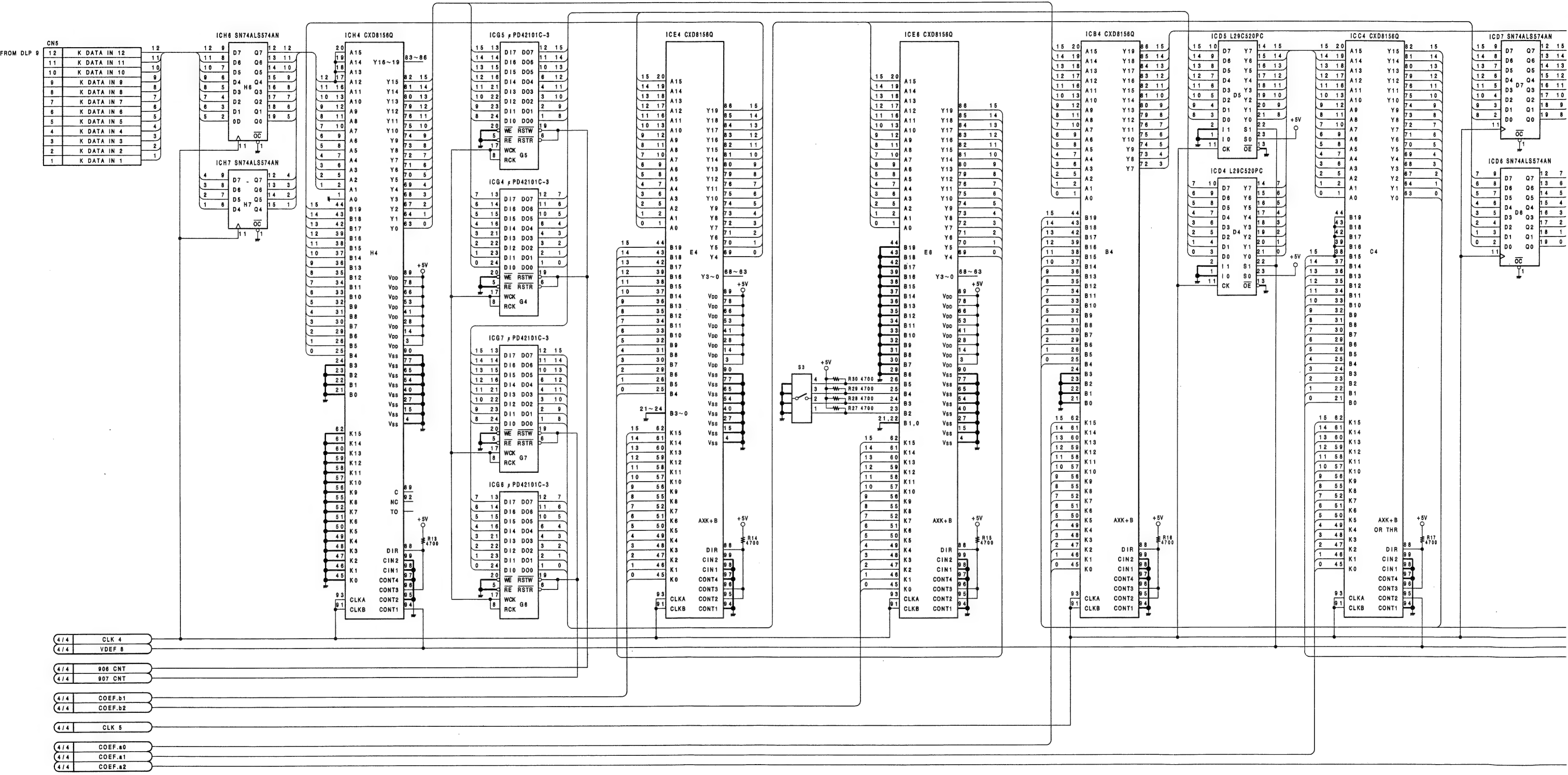
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1-636-818-12
DME-5000

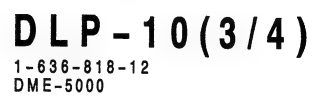
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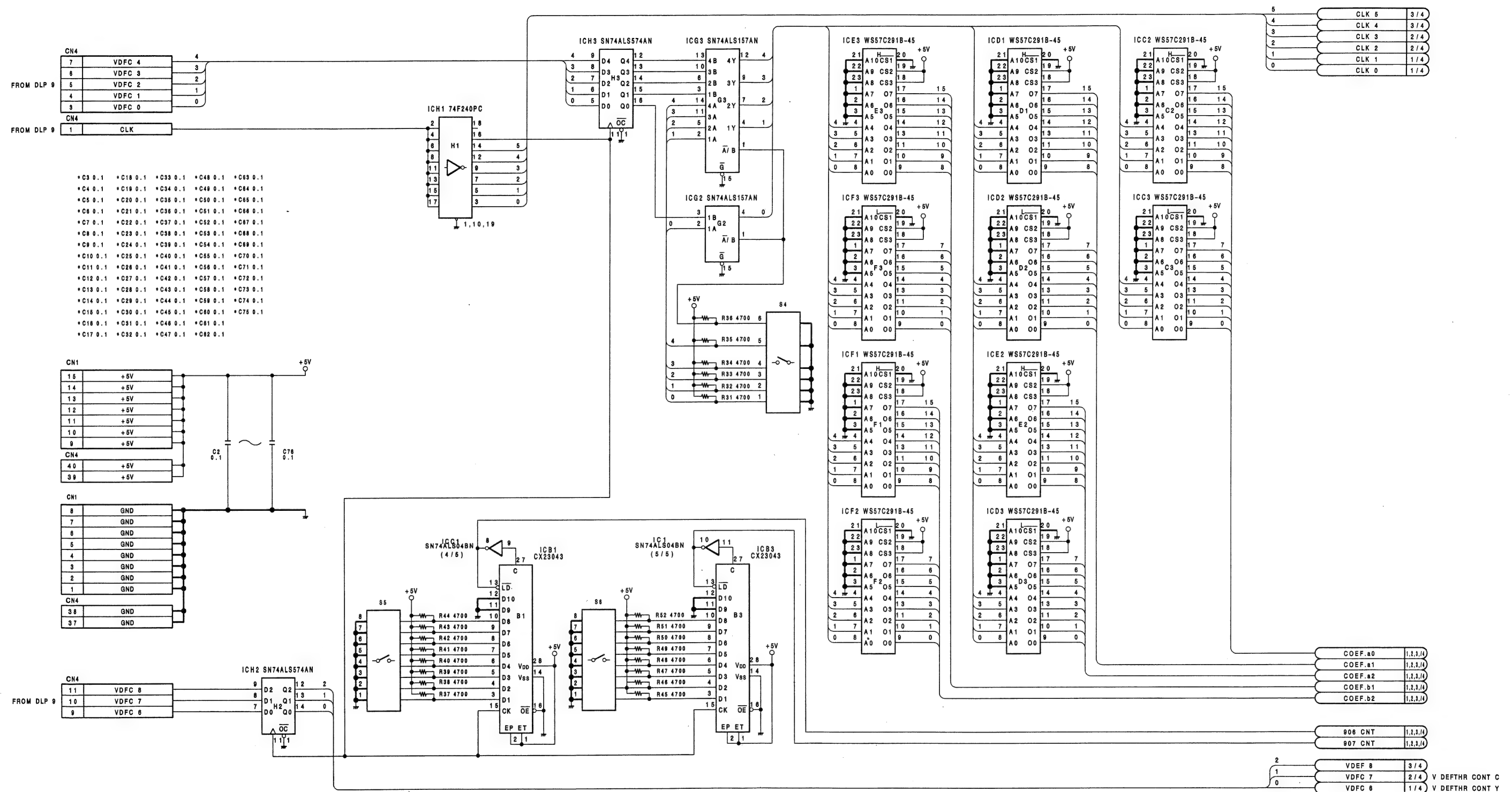


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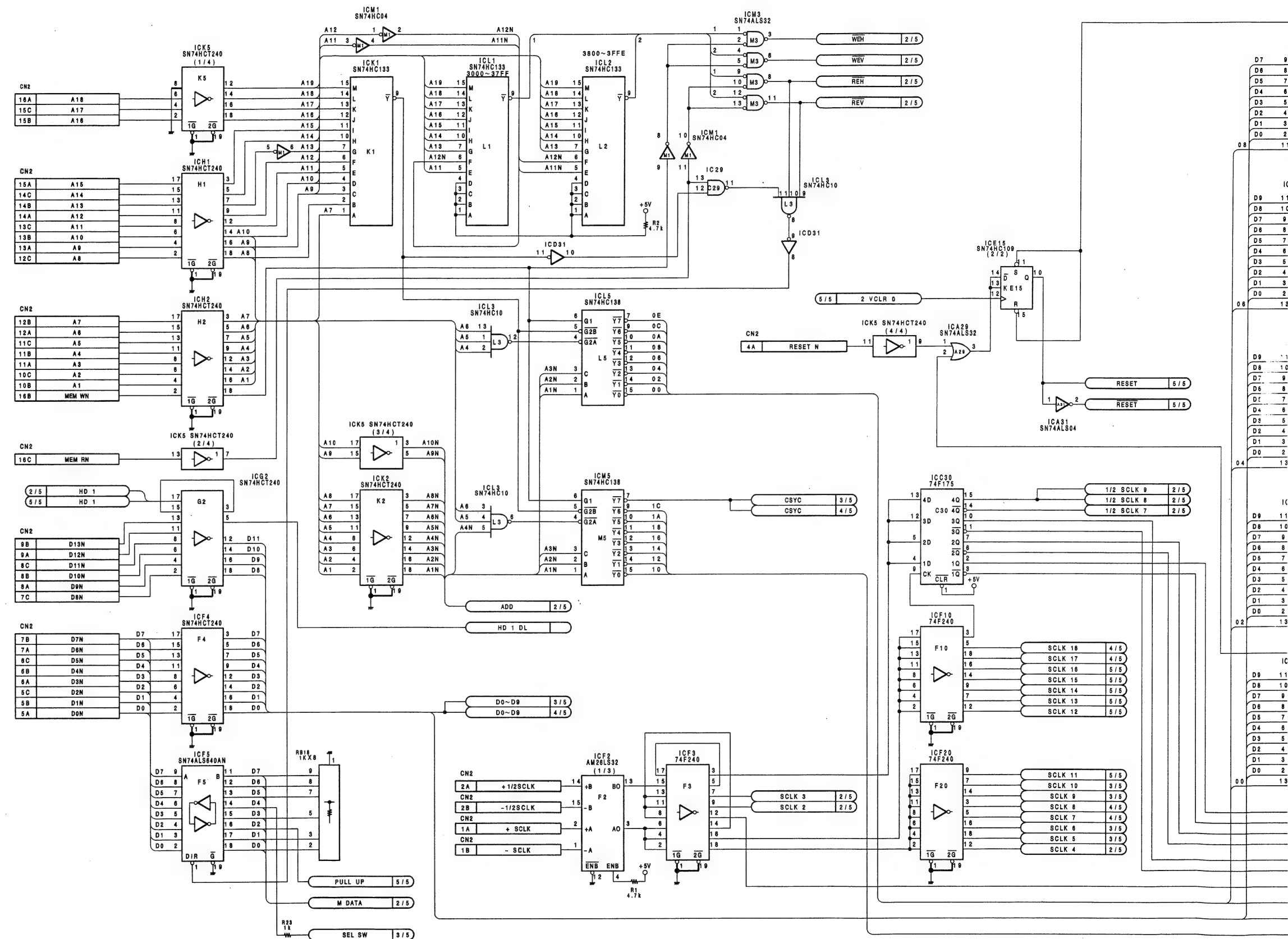


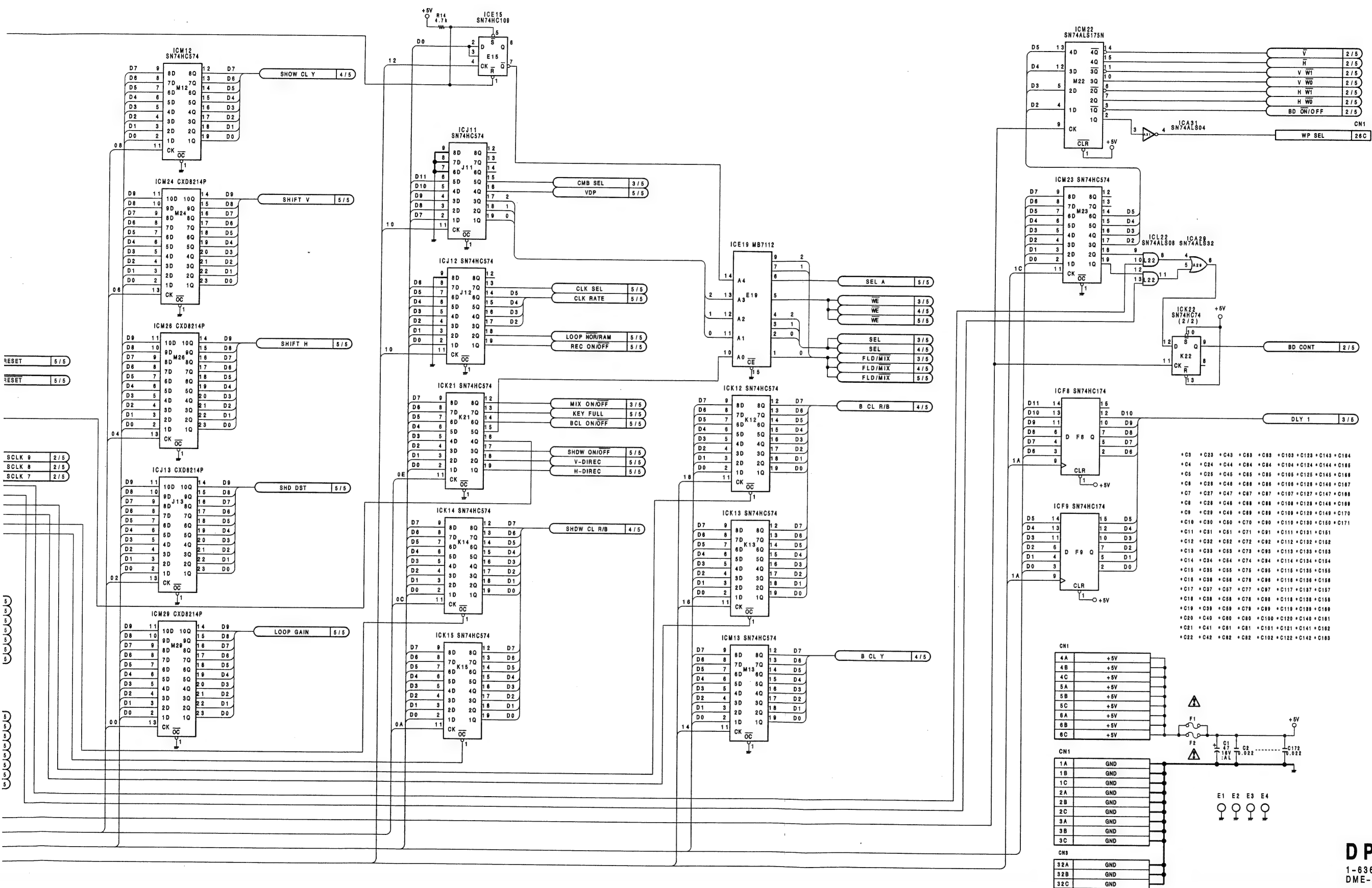
DLP-10;IIR VERTICAL LOW PASS FILTER



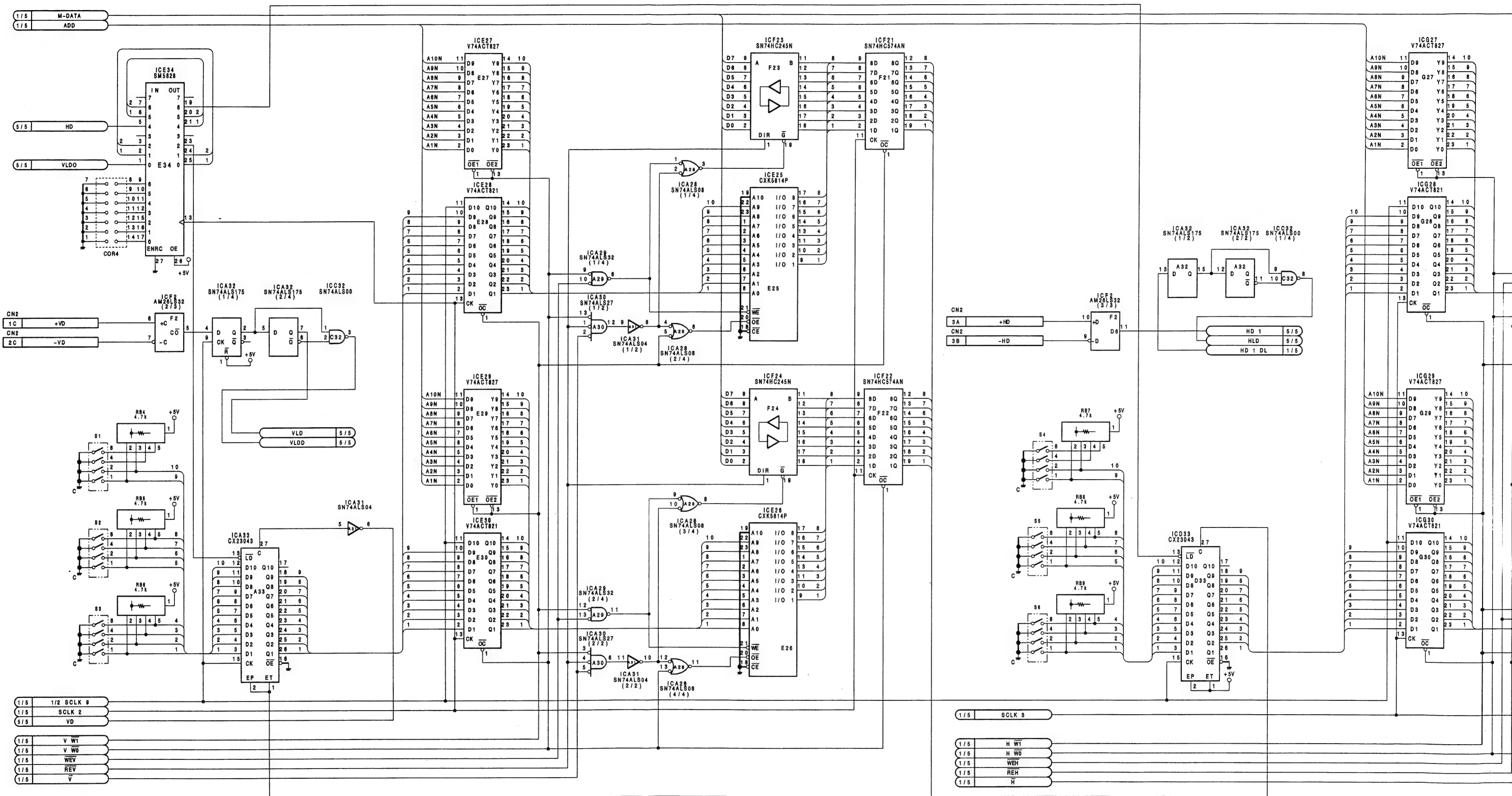
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 1-636-818-12
 DME-5000

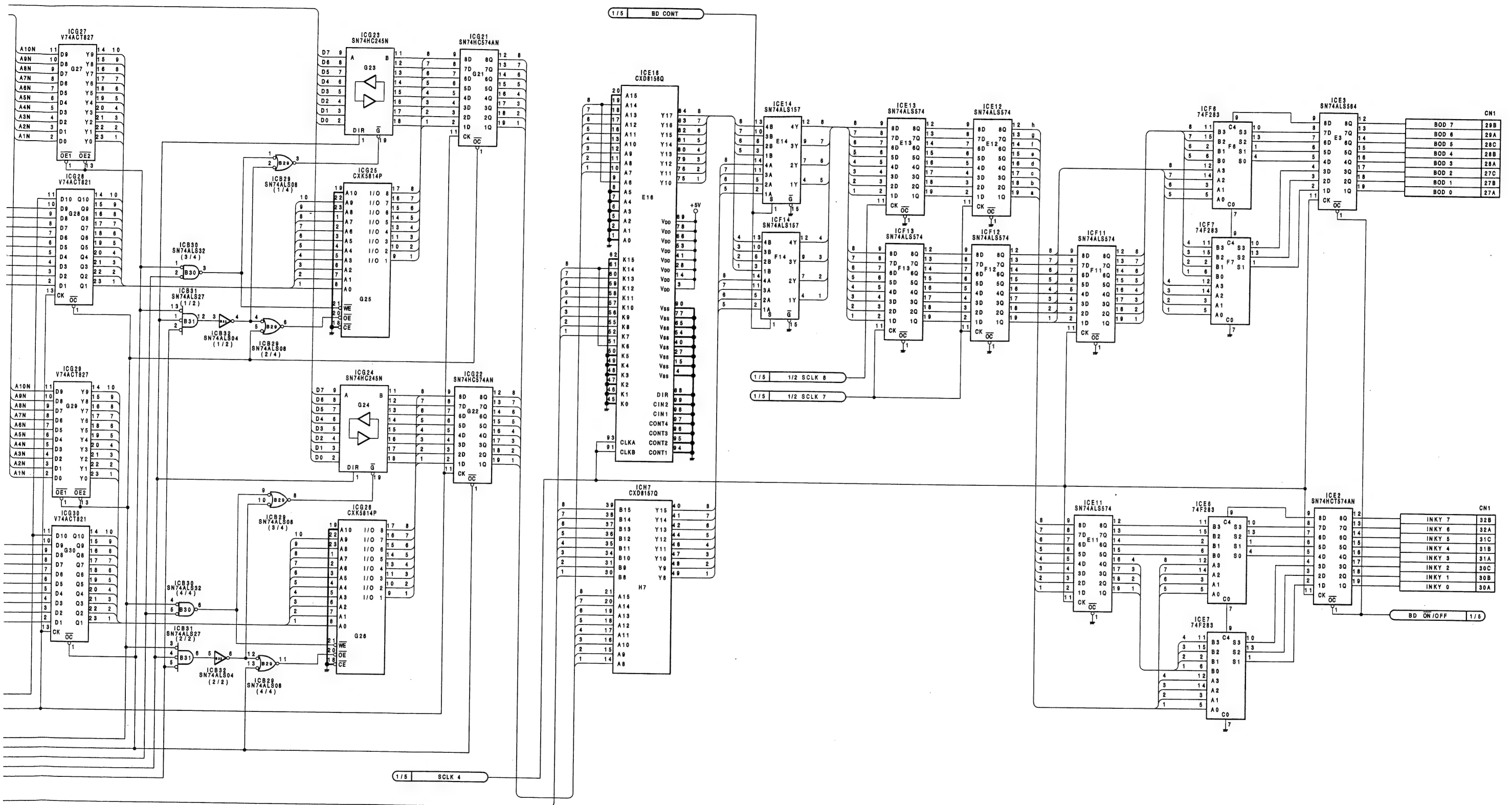
DPR-16;OUTPUT RECURSIVE EFFECT GENERATOR AND BORDER GENERATOR



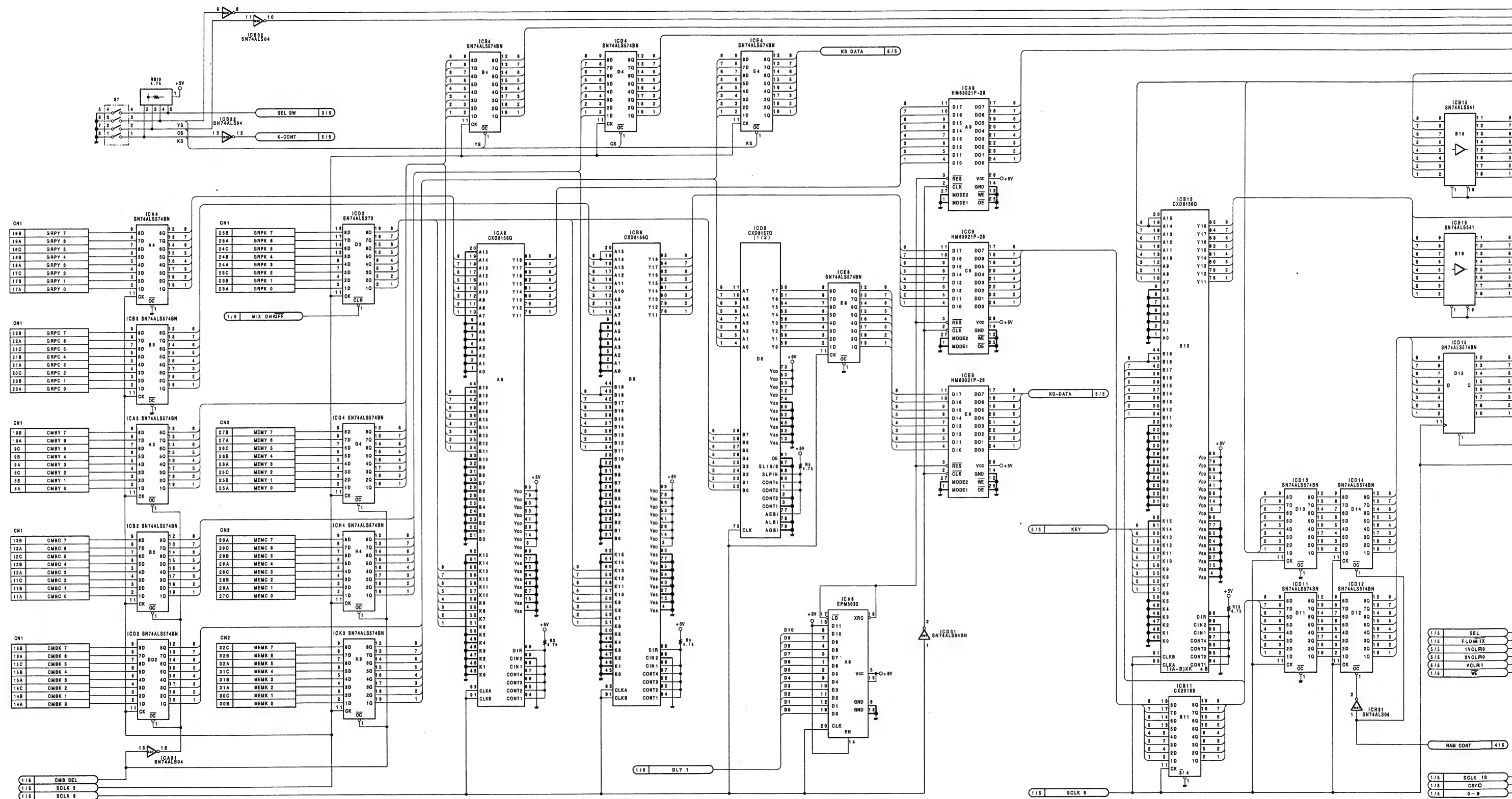


DPR-16; OUTPUT RECURSIVE EFFECT GENERATOR AND BORDER GENERATOR





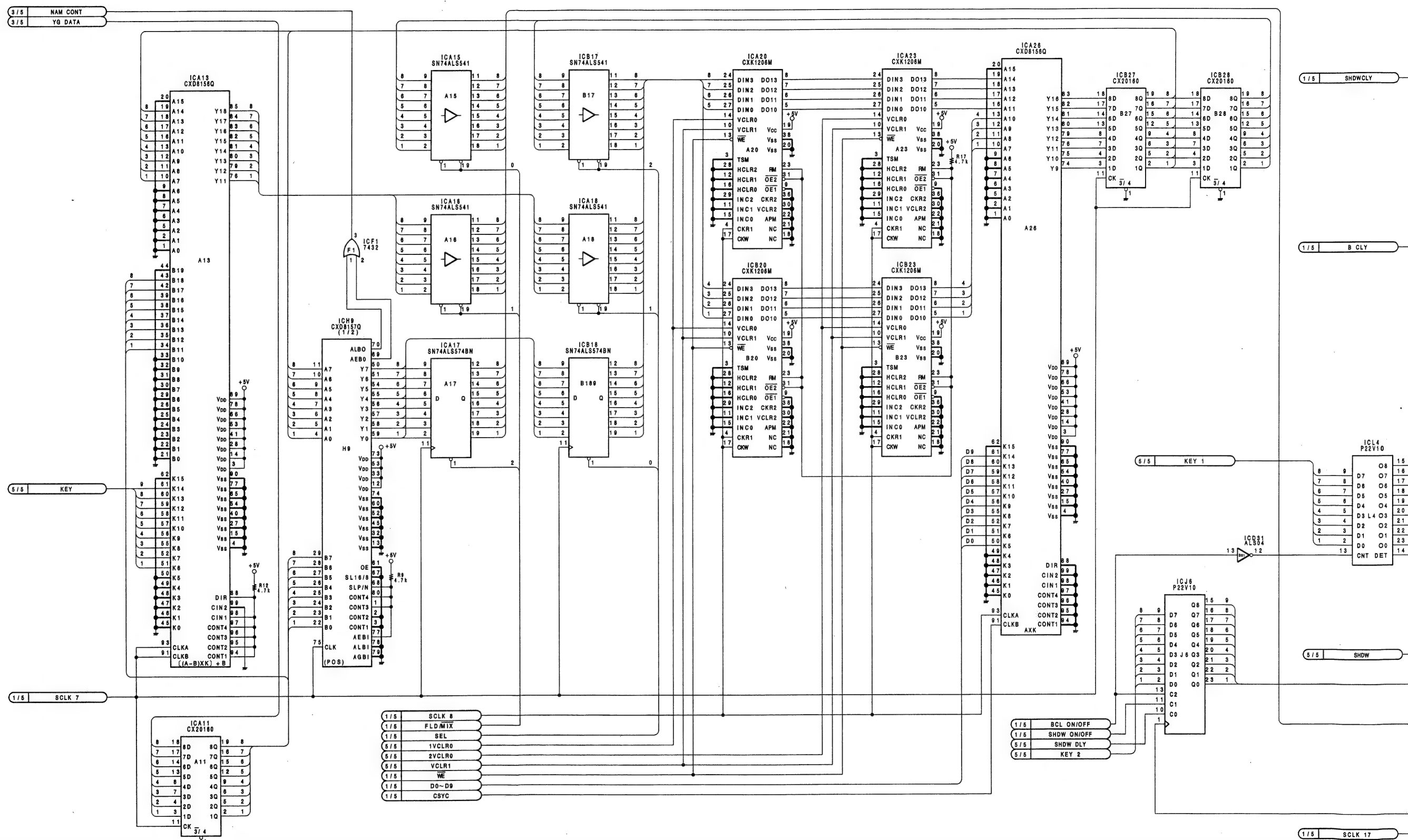
**DPR-16;OUTPUT RECURSIVE EFFECT GENERATOR
AND BORDER GENERATOR**

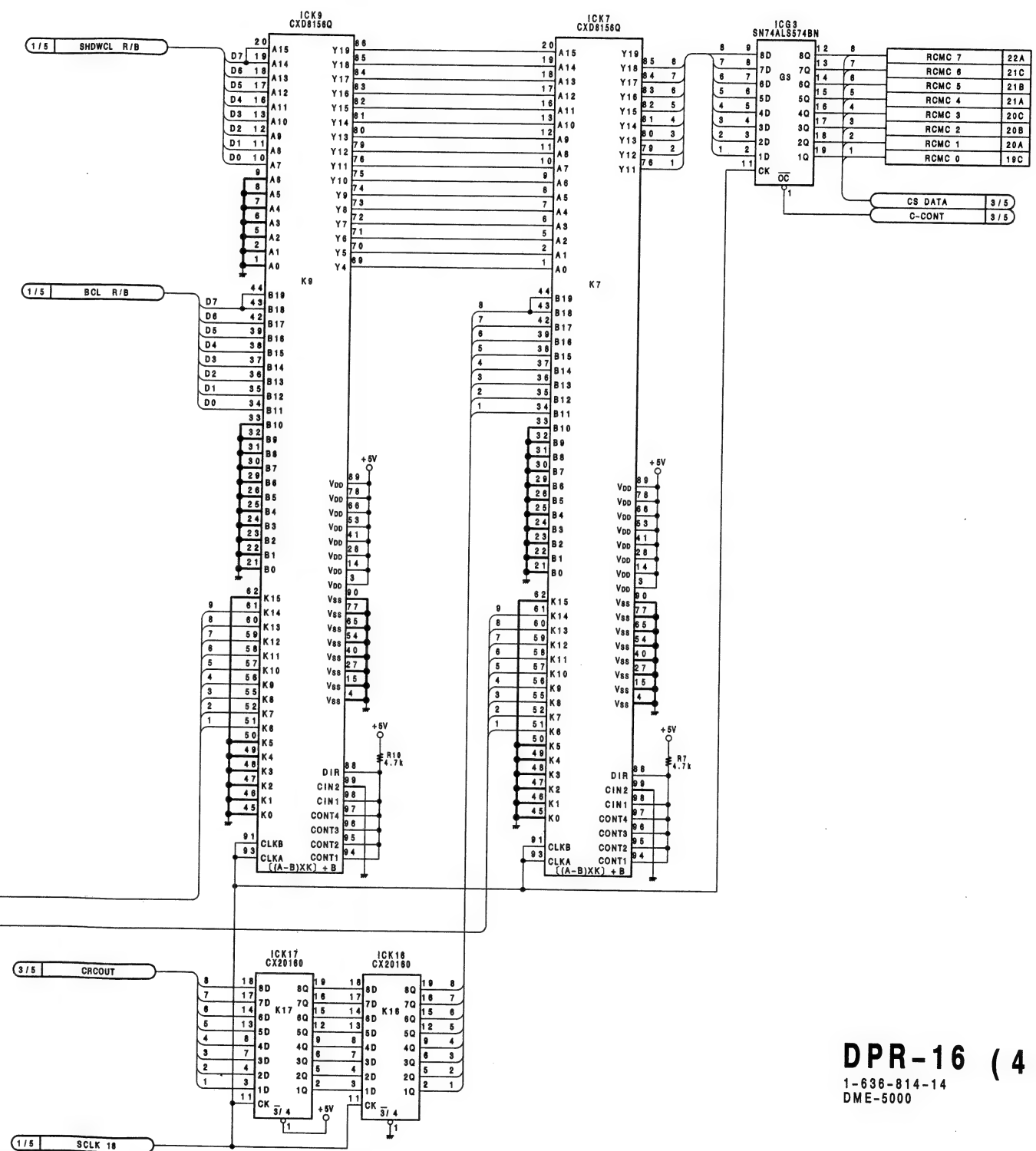
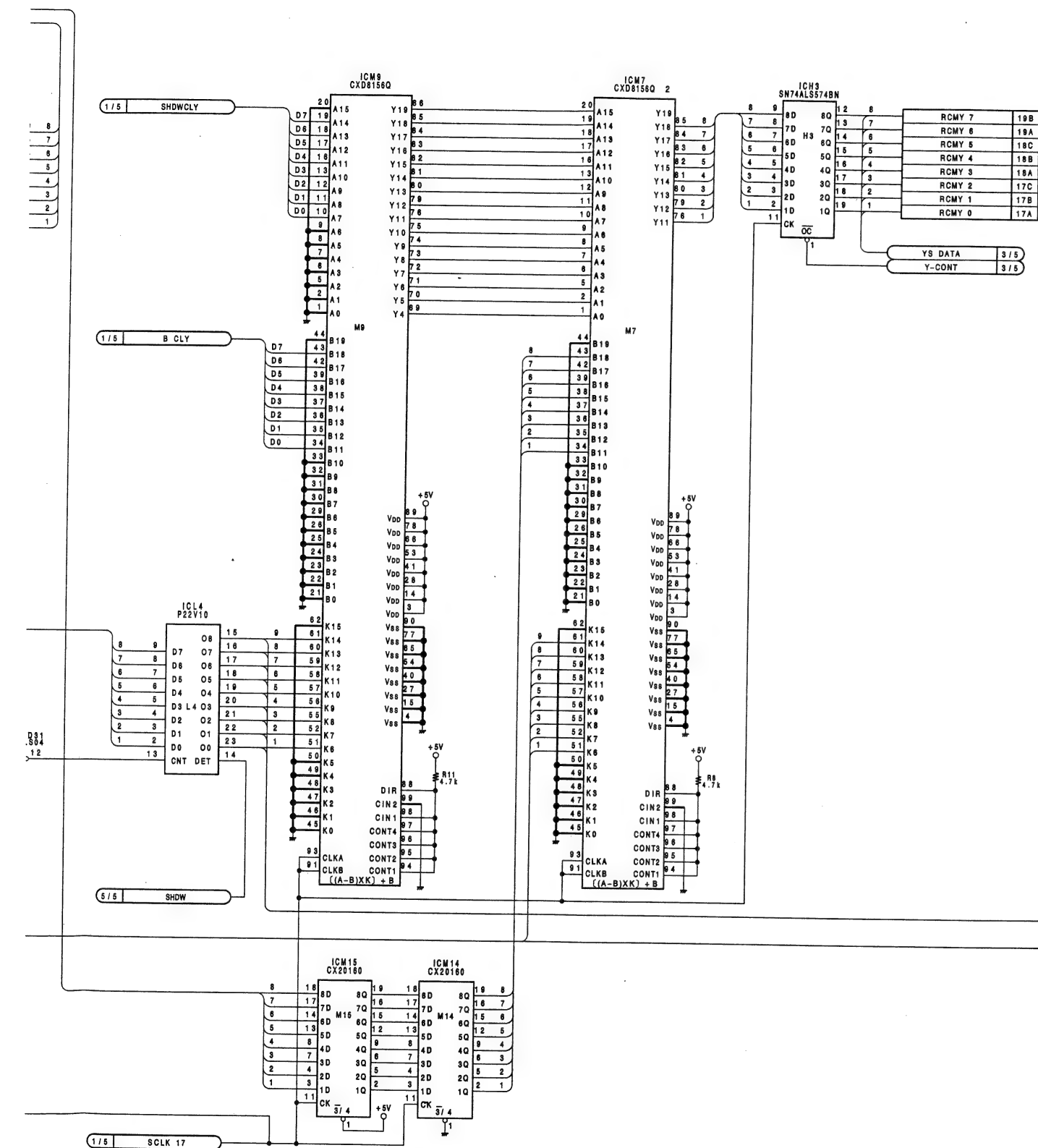


Y-CONT	4/5
C-CONT	4/5
Y8 DATA	4/5
CS DATA	4/5
Y8 DATA	4/5
CRCOUT	4/5

DPR-16 (3/5)
1-636-814-14
DME-5000

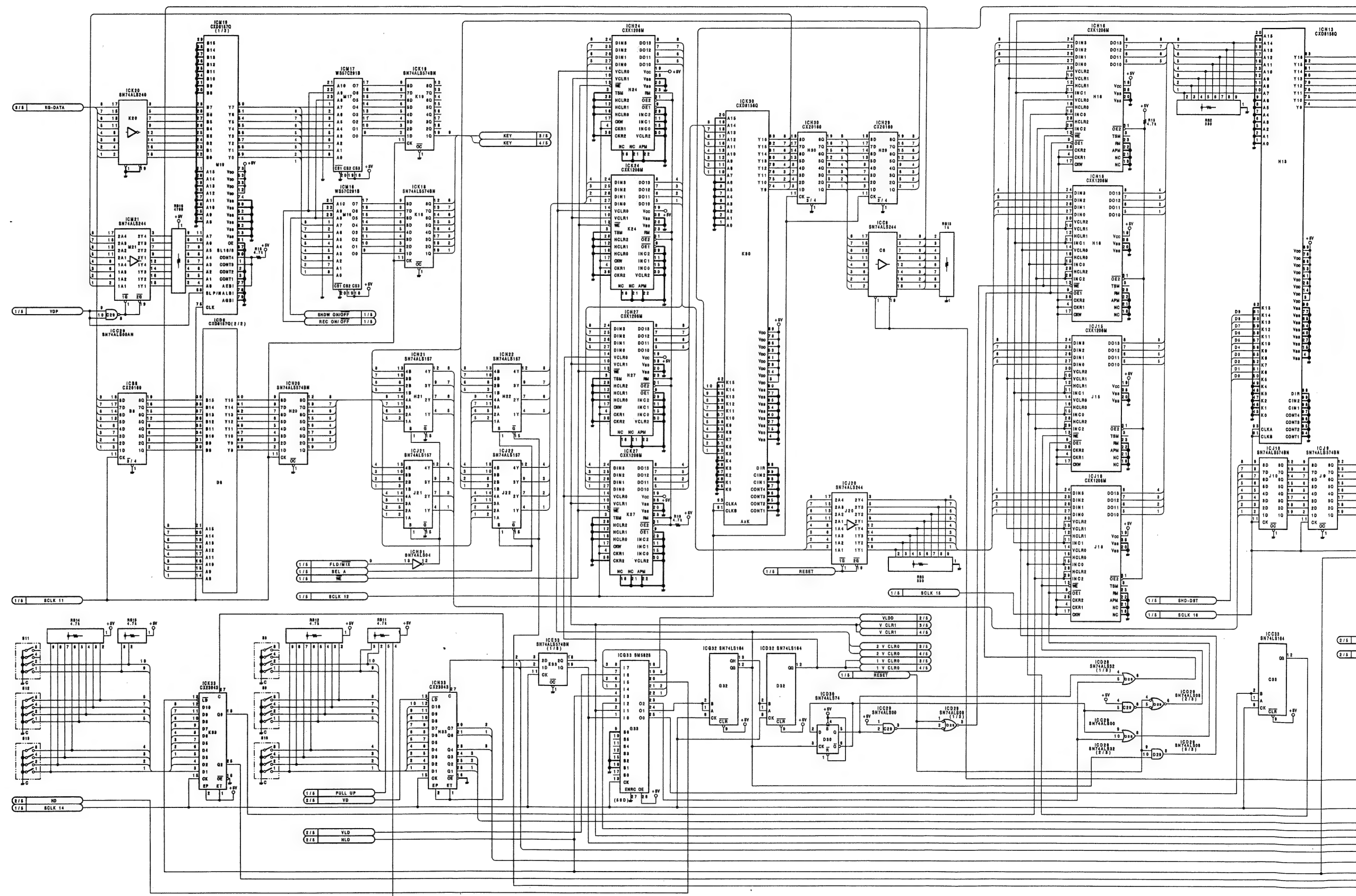
DPR-16; OUTPUT RECURSIVE EFFECT GENERATOR
AND BORDER GENERATOR

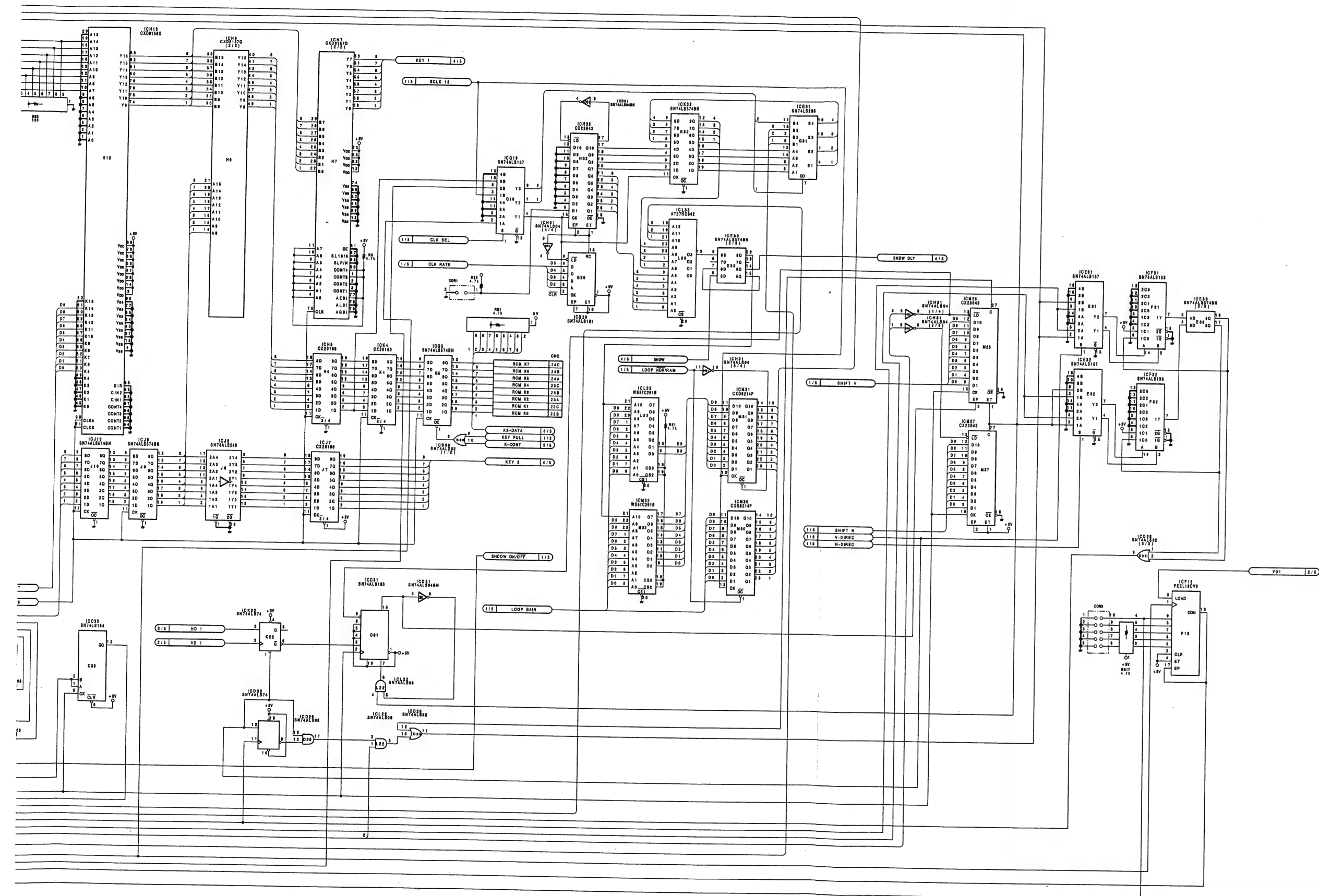




DPR-16 (4 / 5)
1-636-814-14
DME-5000

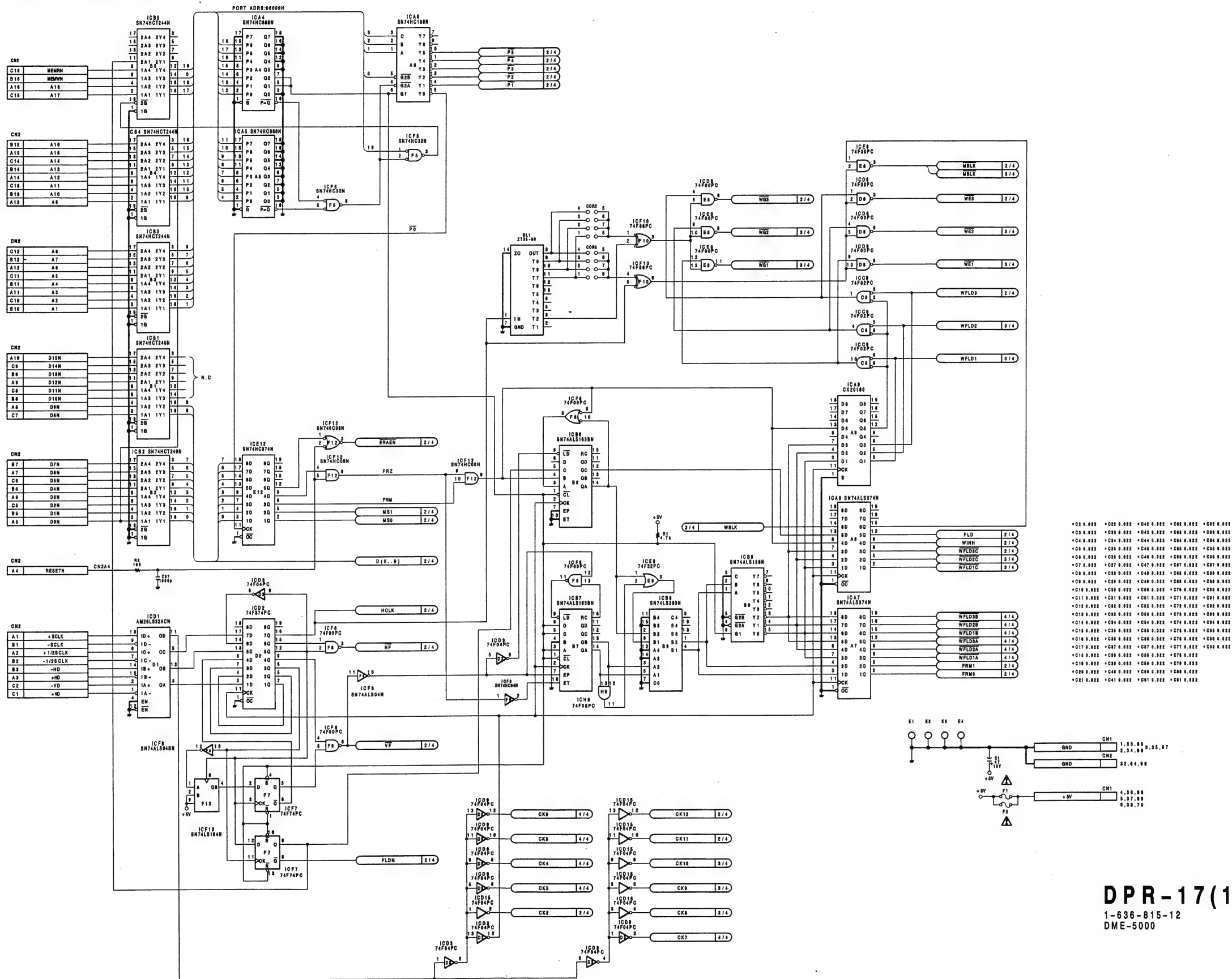
DPR-16;OUTPUT RECURSIVE EFFECT GENERATOR AND BORDER GENERATOR



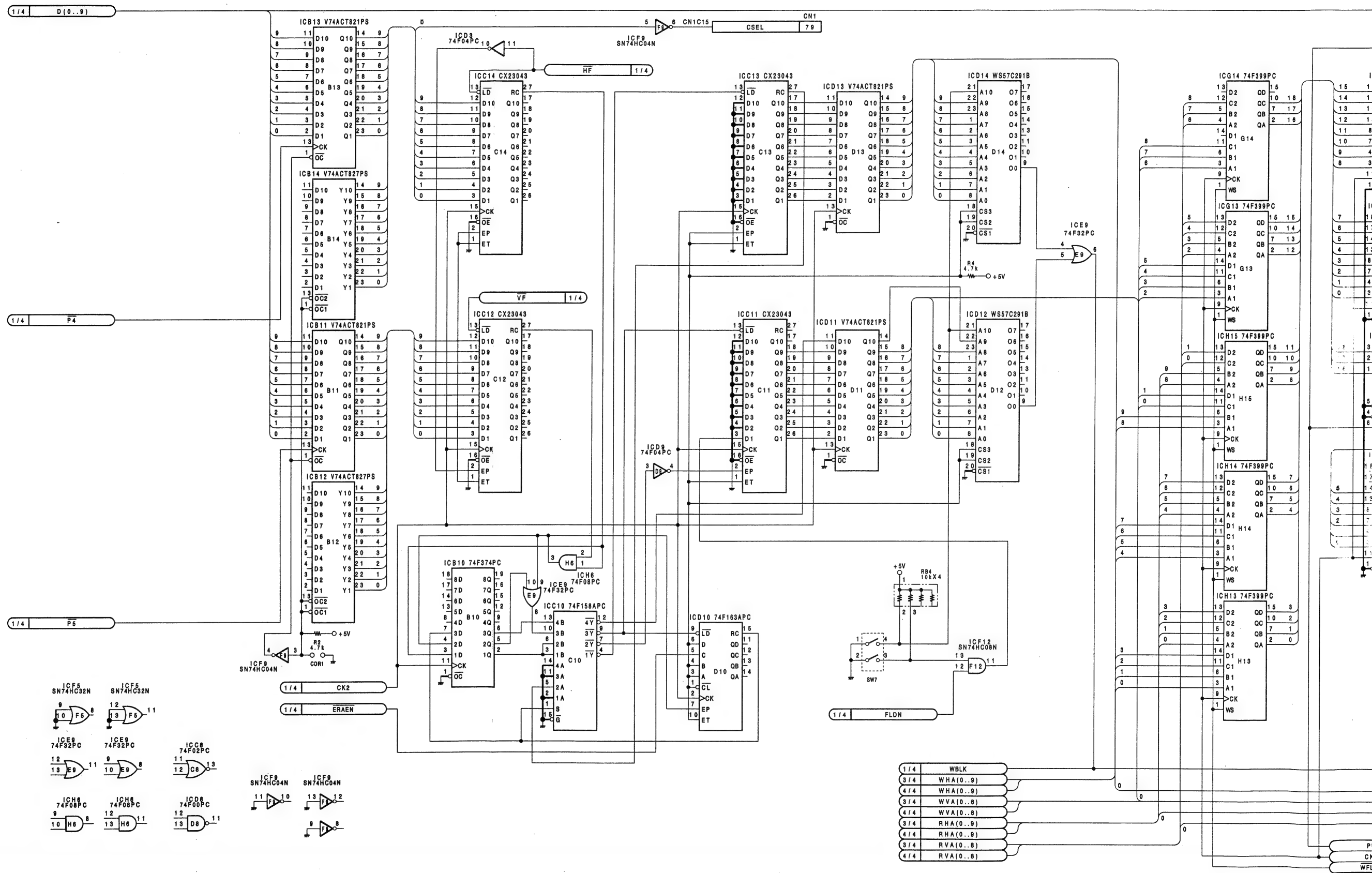


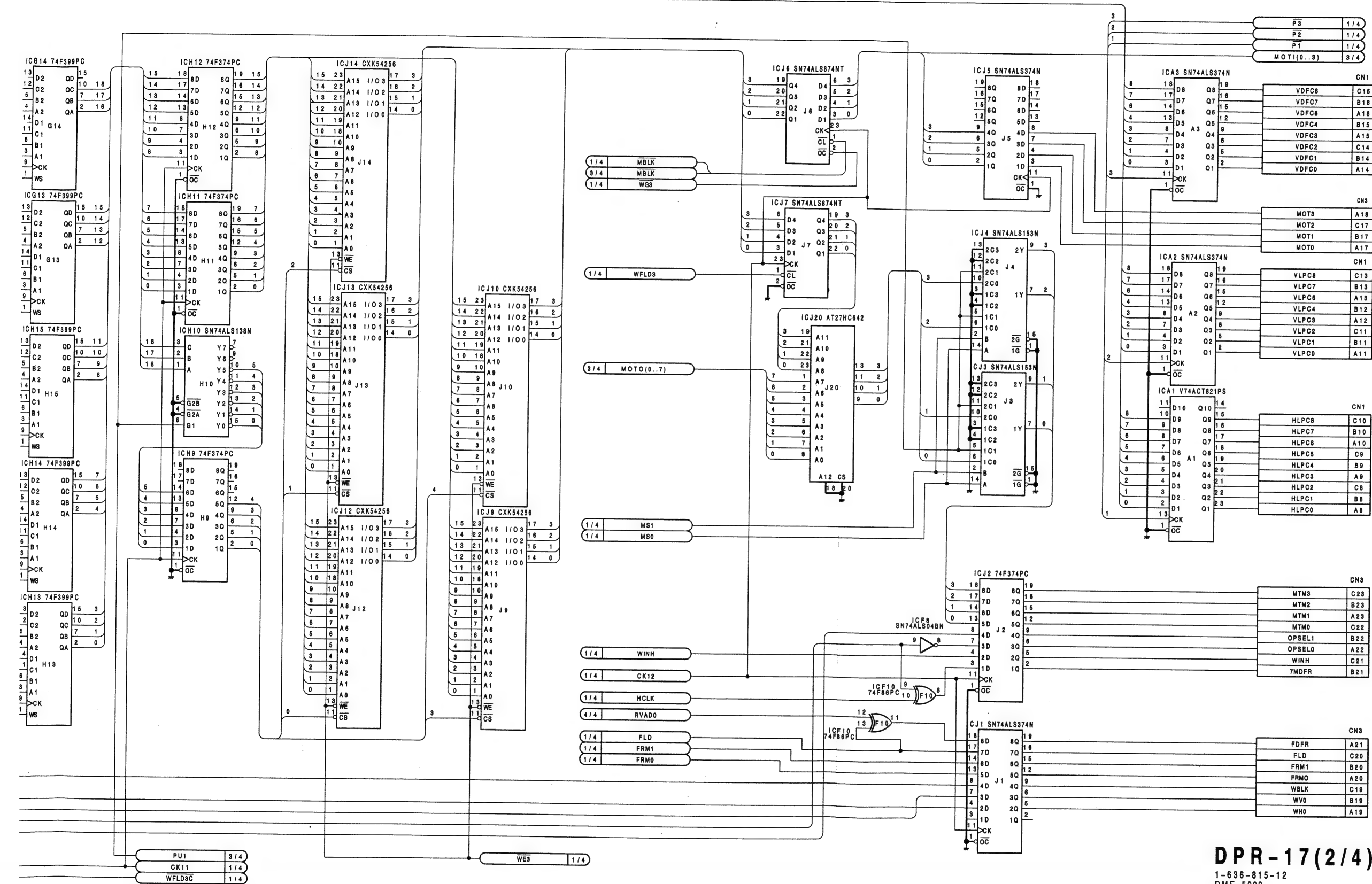
DPR-16 (5/5)
1-636-814-14
DME-5000

DPR-17;MEMORY ADDRESS SELECTOR AND WRITE ADDRESS GENERATOR



DPR-17;MEMORY ADDRESS SELECTOR AND WRITE ADDRESS GENERATOR

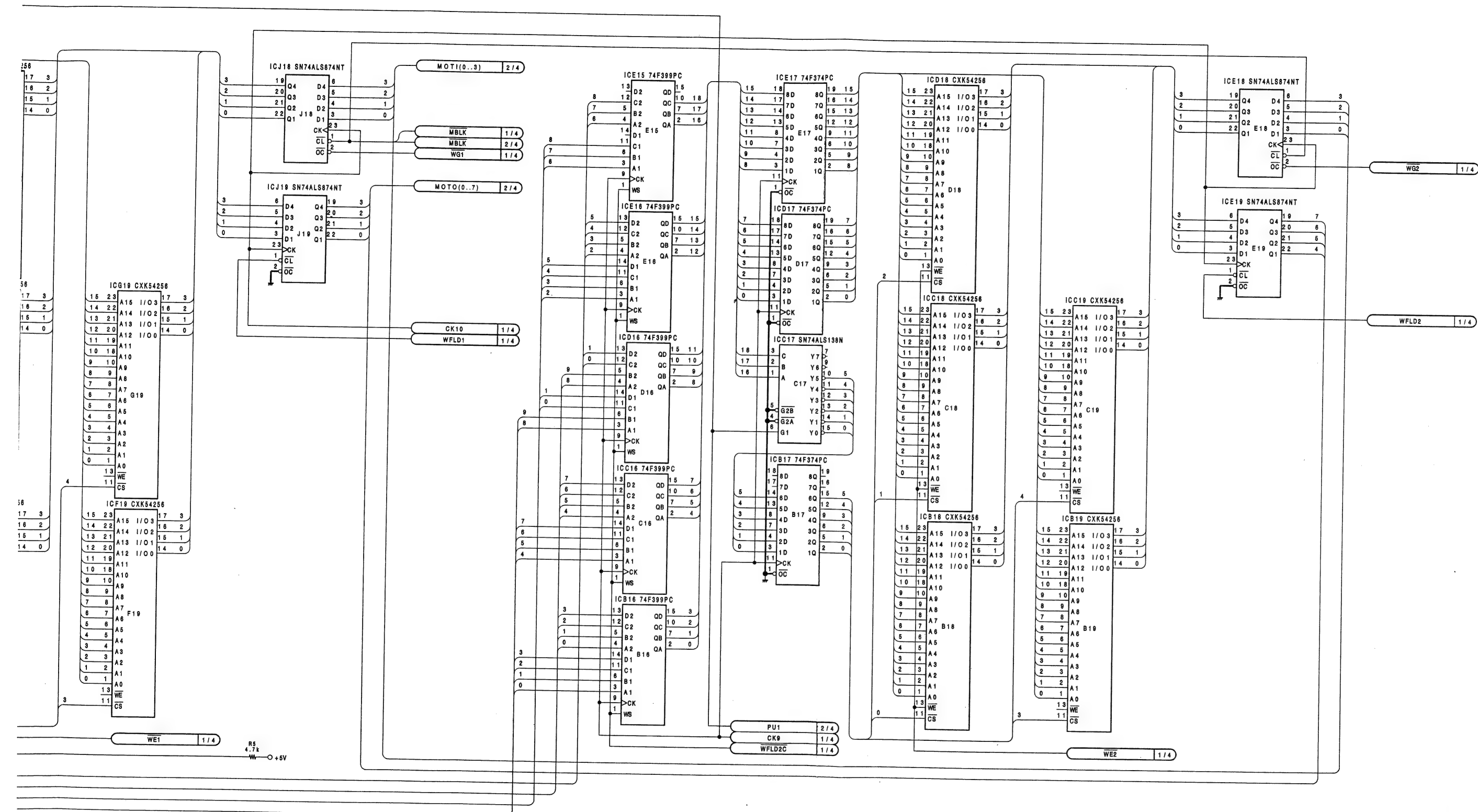




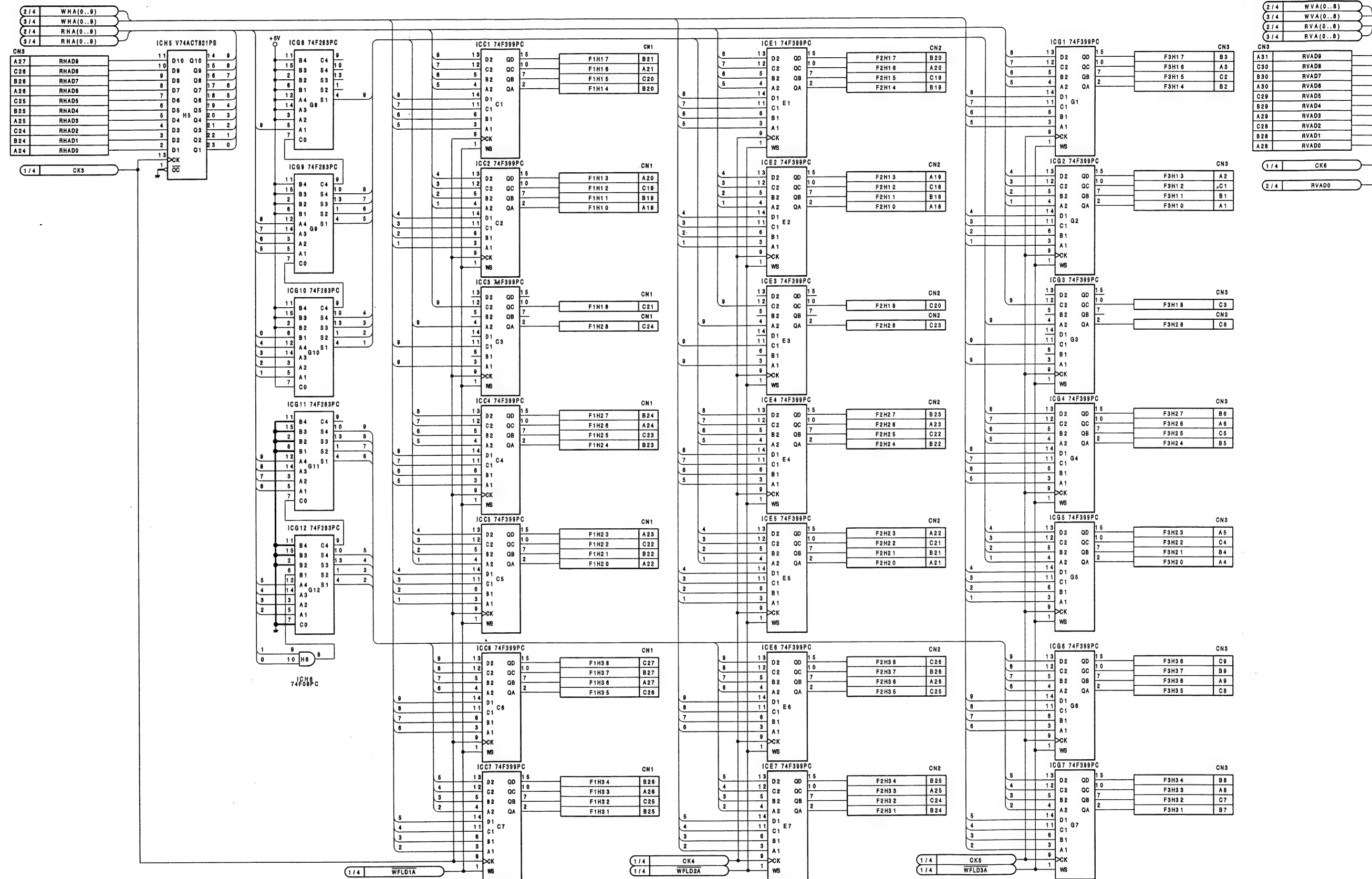
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1-636-815-12
DME-5000

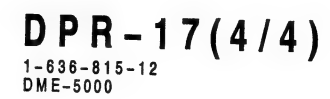
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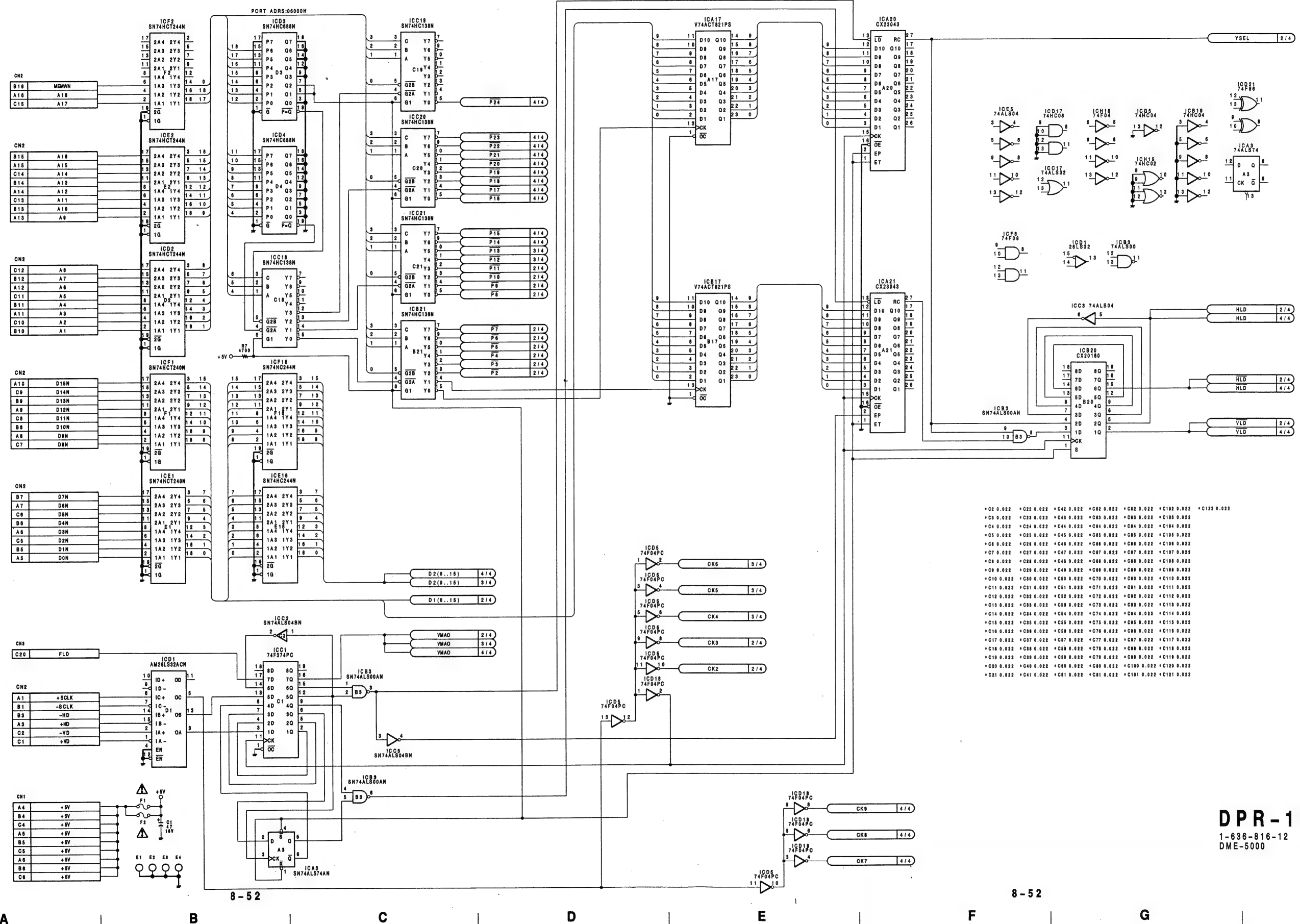


DPR-17(3/4)
1-636-815-12
DME-5000

DPR-17;MEMORY ADDRESS SELECTOR AND
WRITE ADDRESS GENERATOR

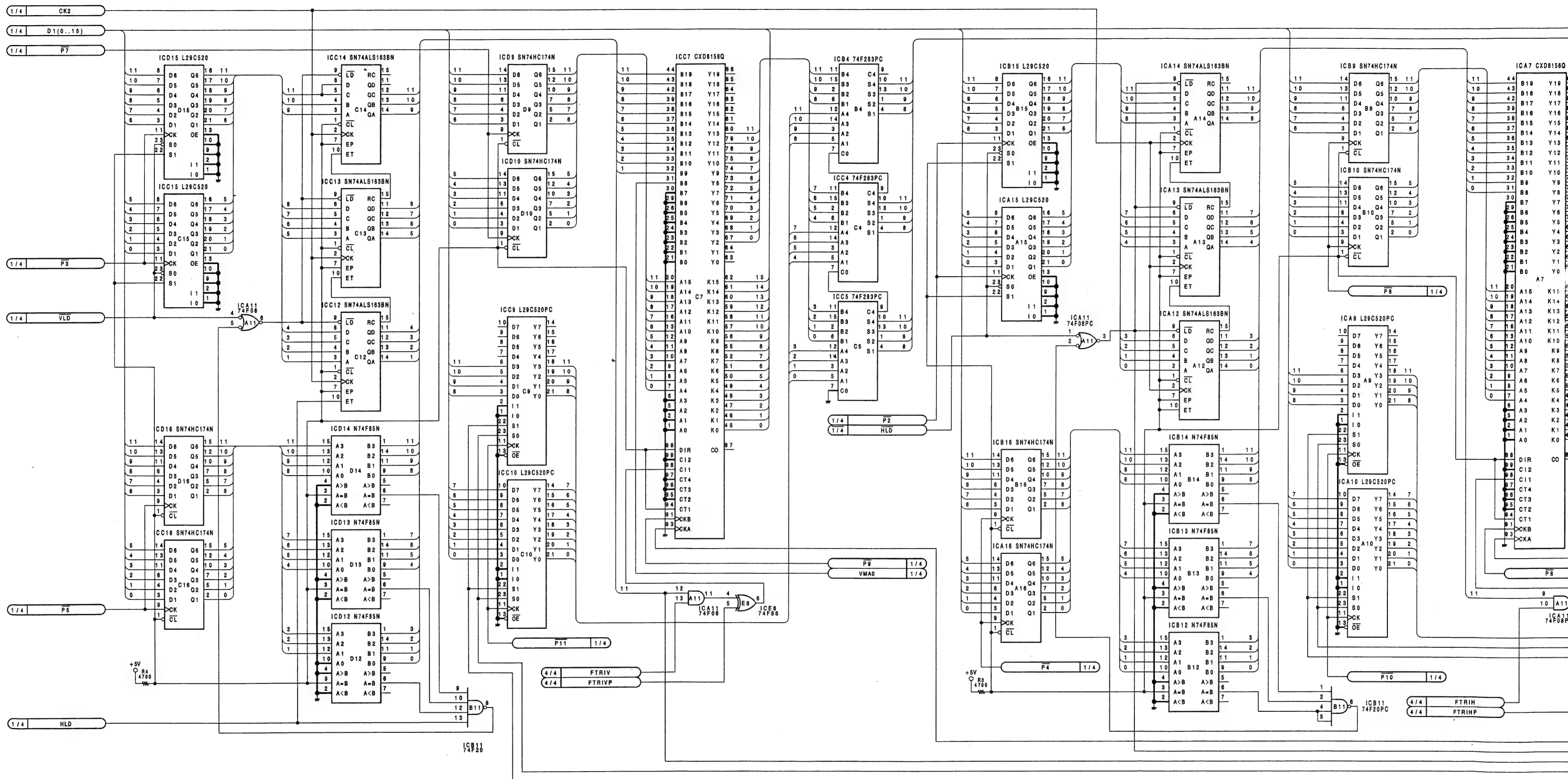


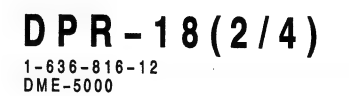
DPR-18;READ ADDRESS GENERATOR AND SPLIT MIRROR GENERATOR



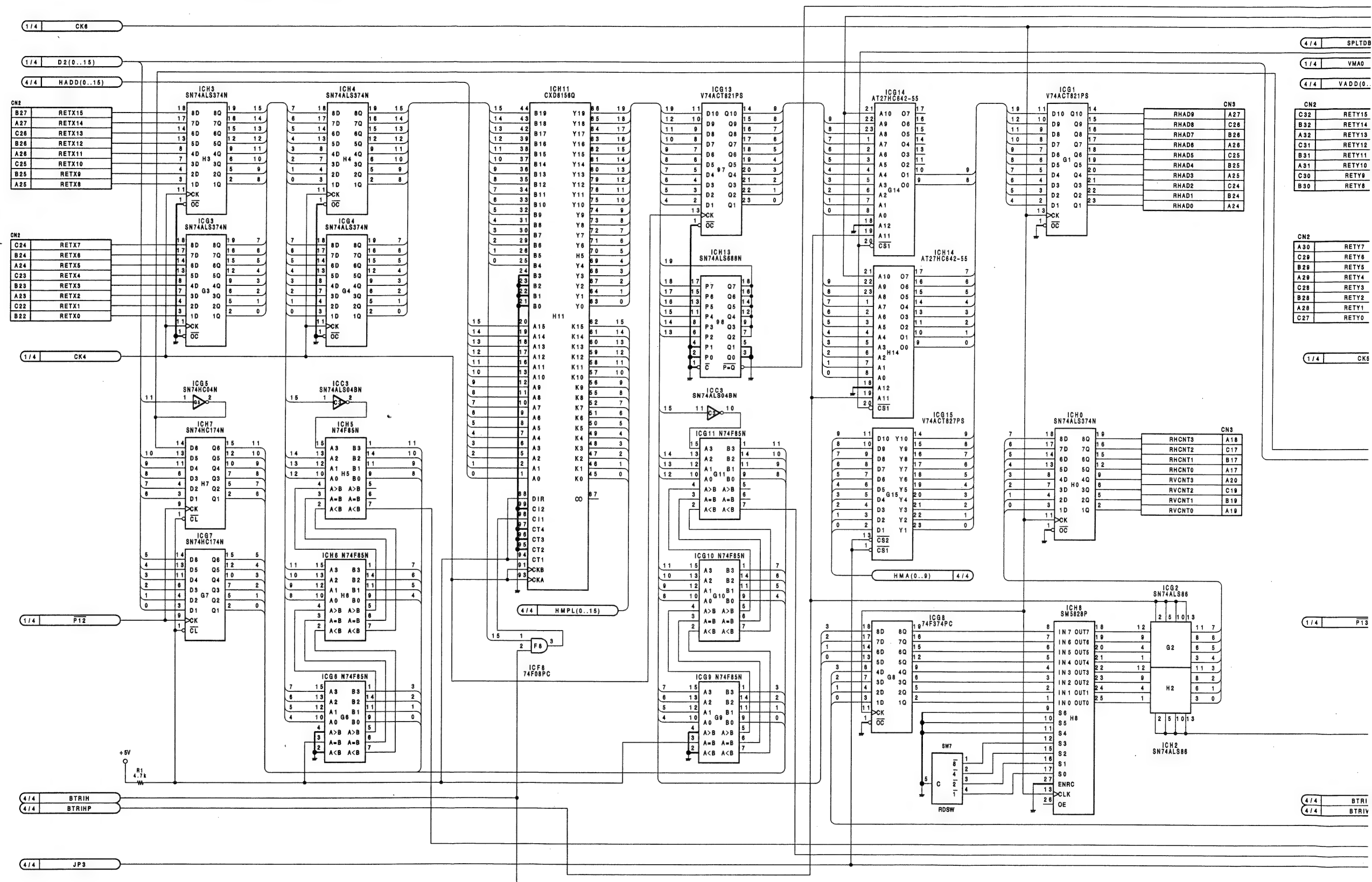
DPR-18(1/4)
1-636-816-12
DME-5000

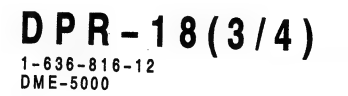
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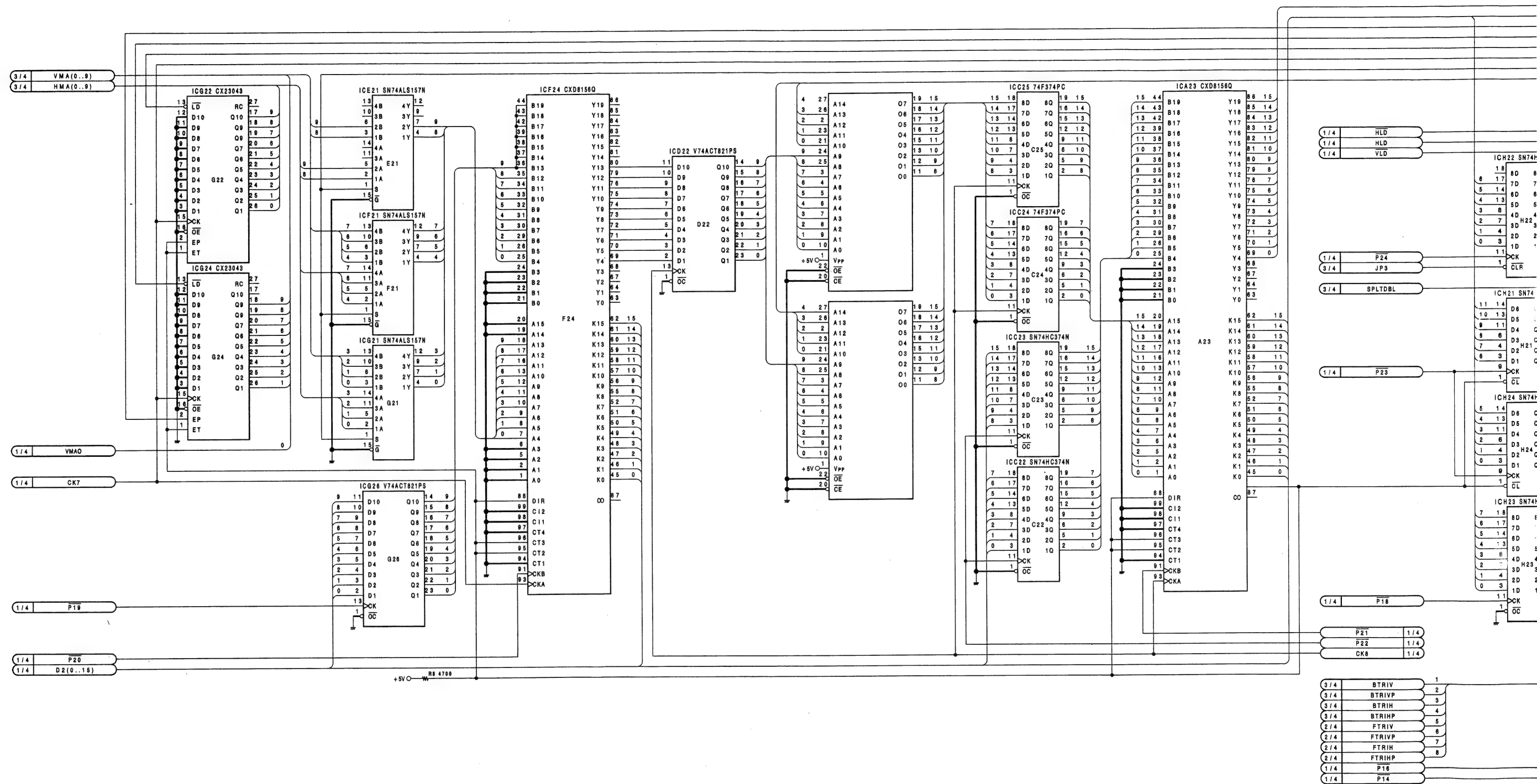


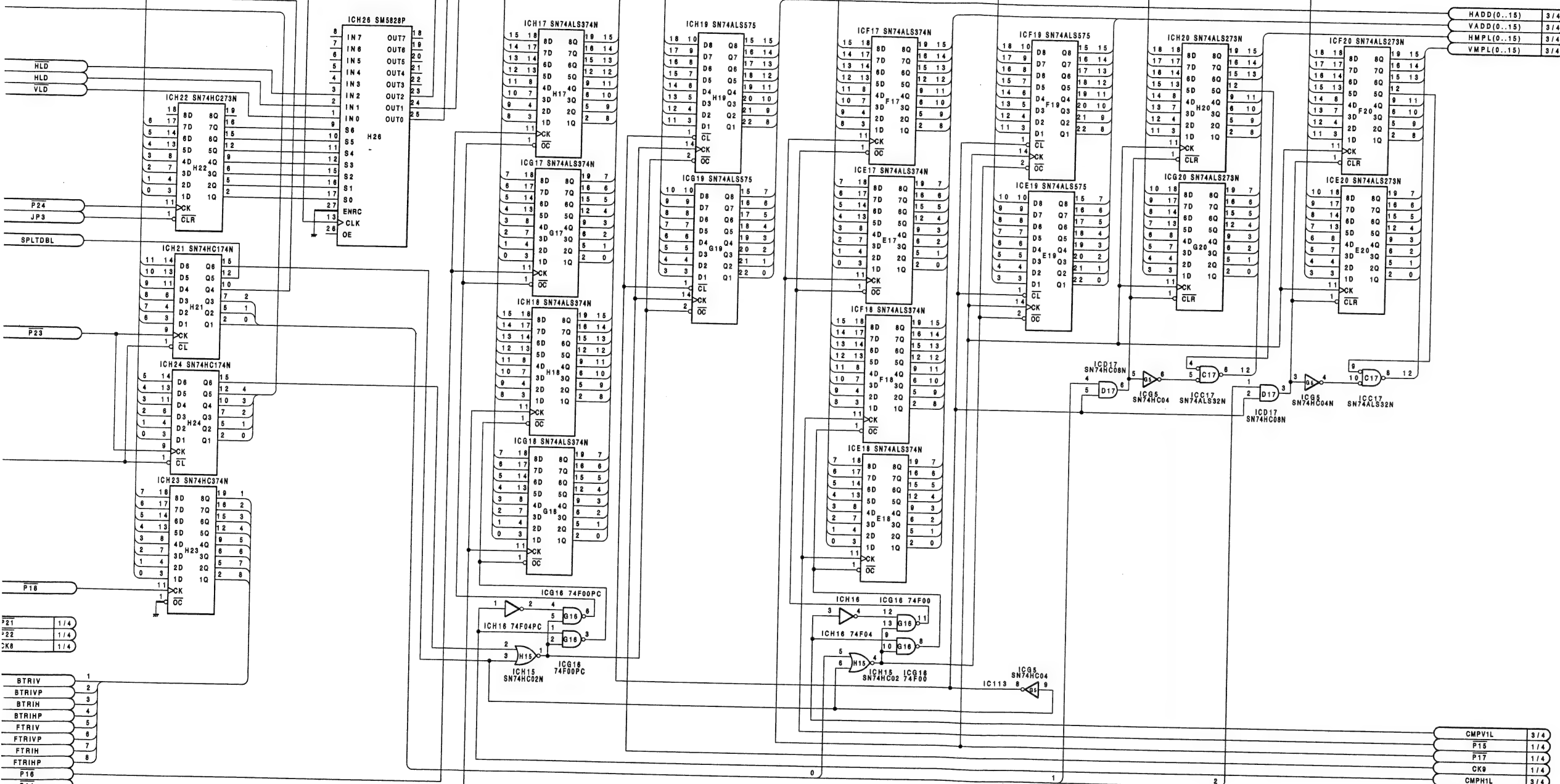
DPR-18;READ ADDRESS GENERATOR AND SPLIT MIRROR GENERATOR



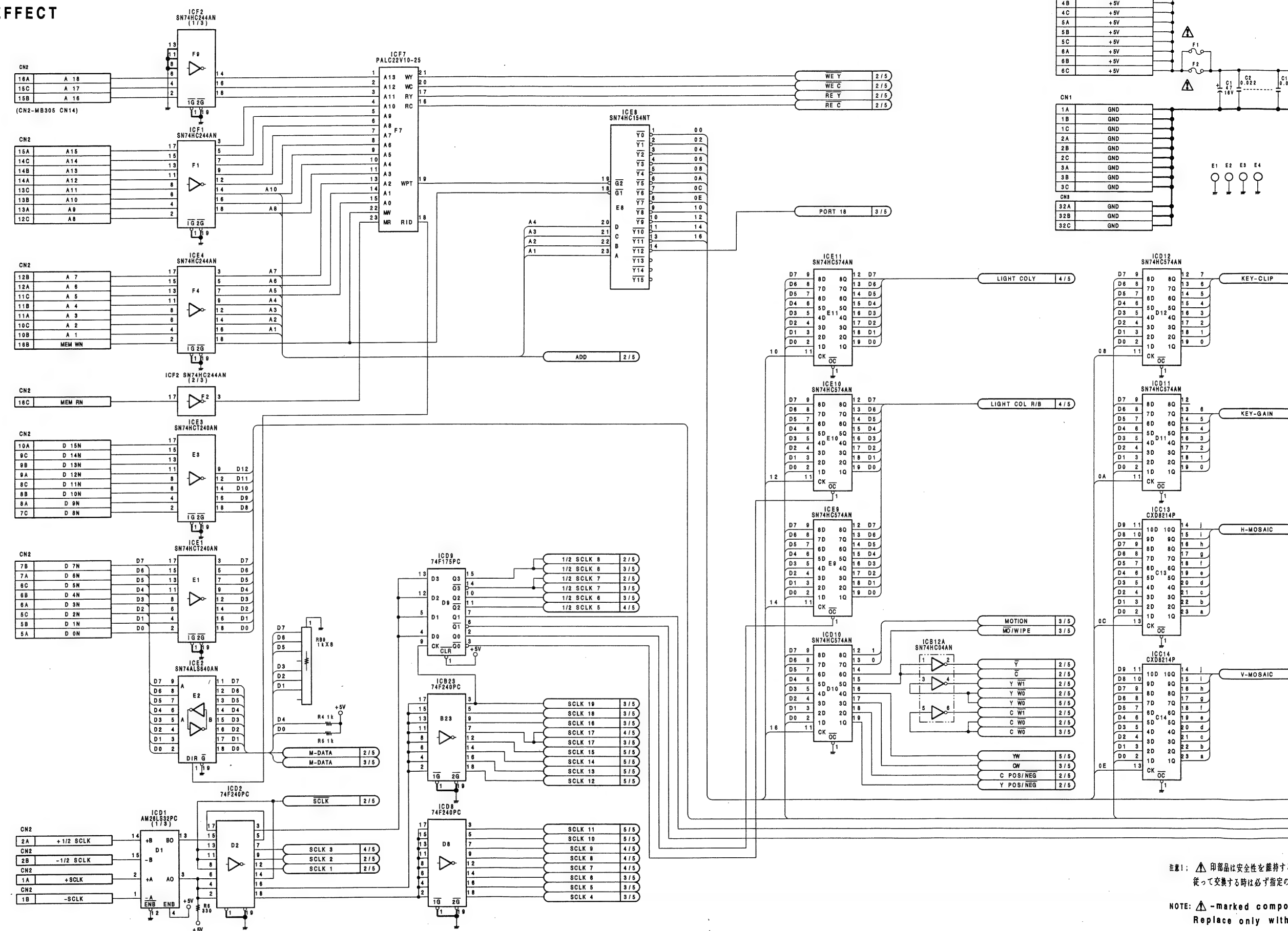


DPR-18;READ ADDRESS GENERATOR AND SPLIT MIRROR GENERATOR





DPR-42;INPUT PIXEL EFFECT



A

B

C

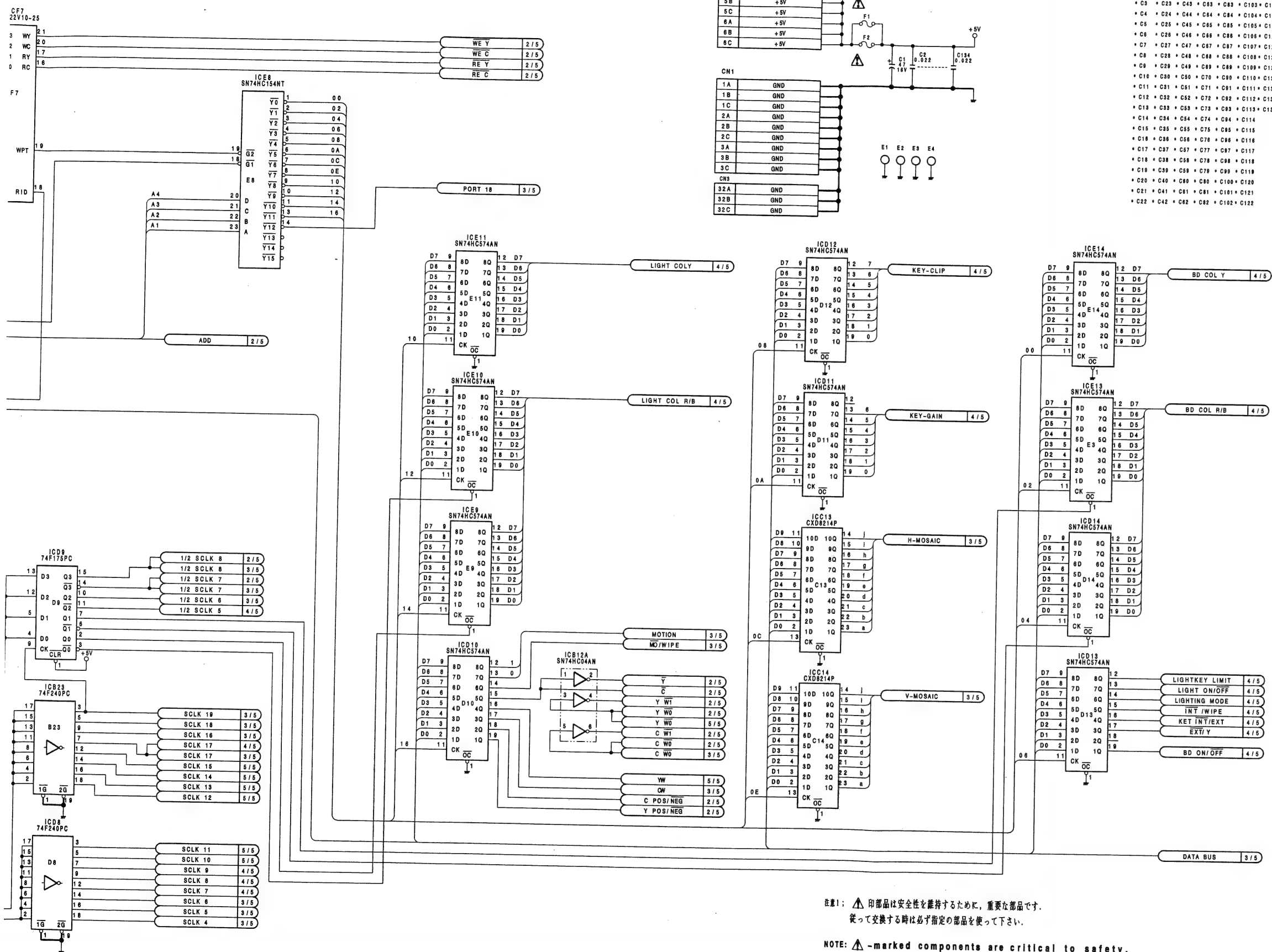
D


E


F

G

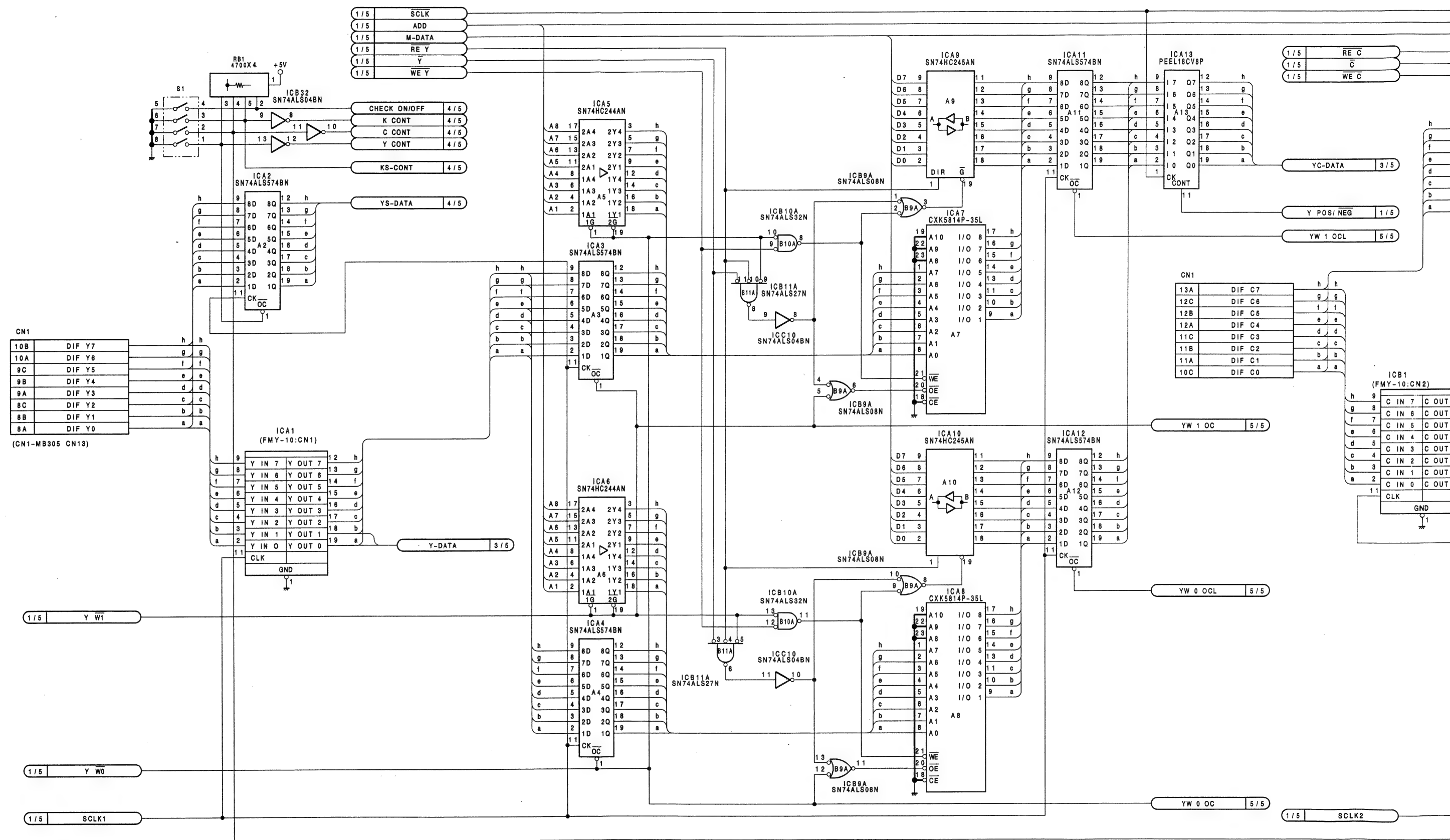
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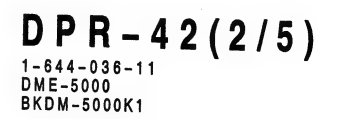


注意1:  印部品は安全性を維持するために、重要な部品です。
従って交換する時は必ず指定の部品を使って下さい。

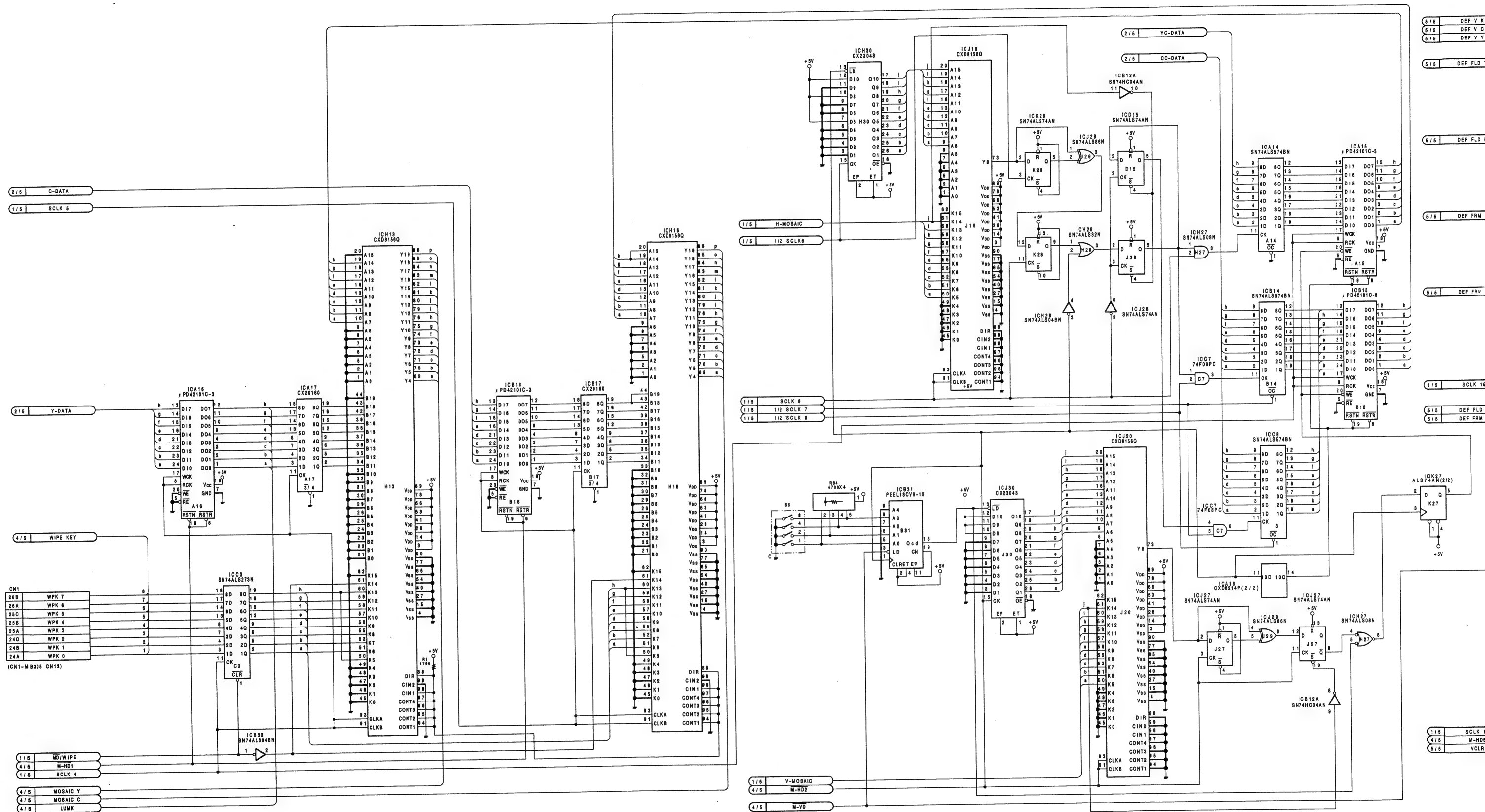
NOTE:  -marked components are critical to safety.
Replace only with same components as specified.

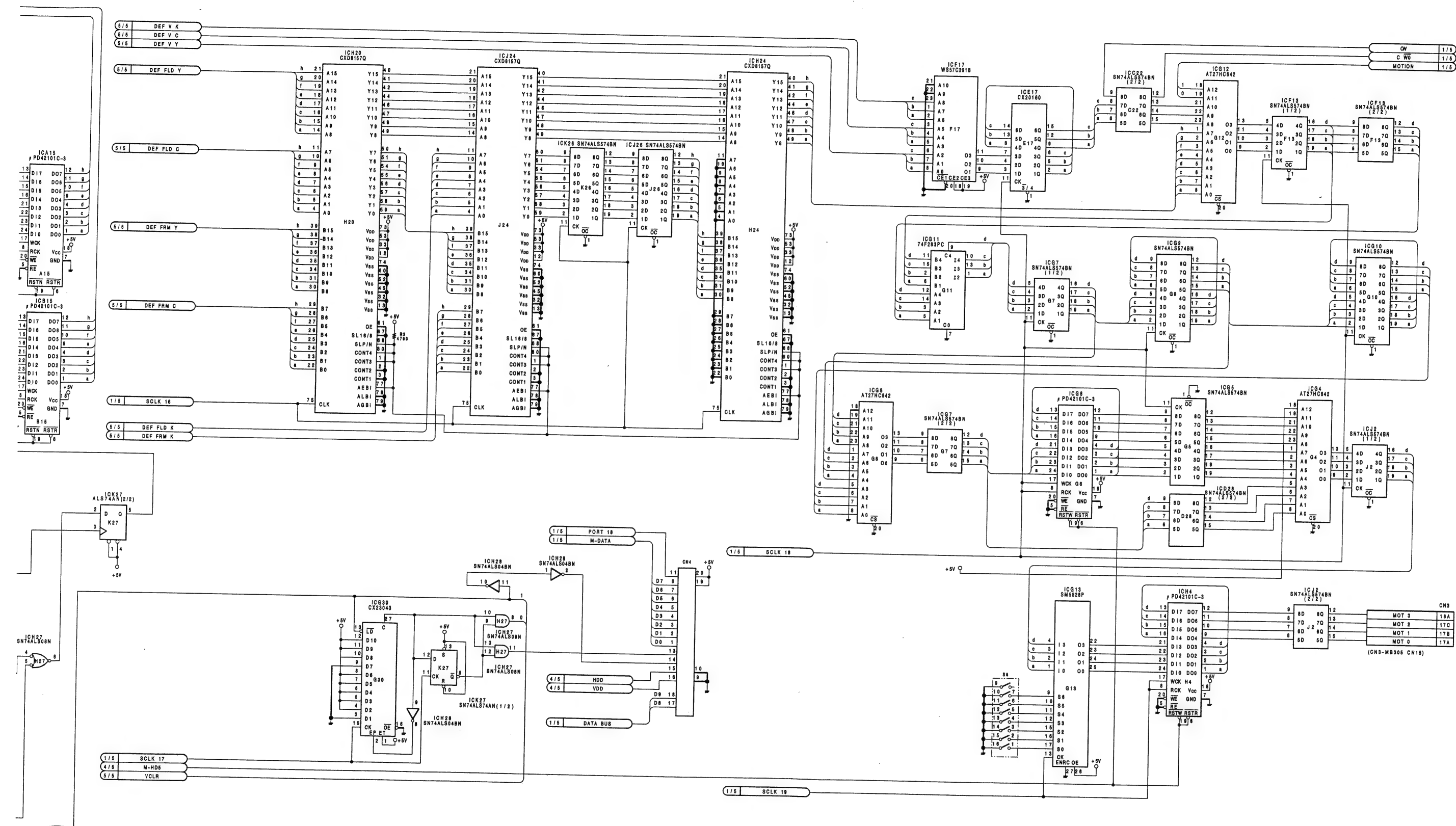
DPR-42;INPUT PIXEL EFFECT



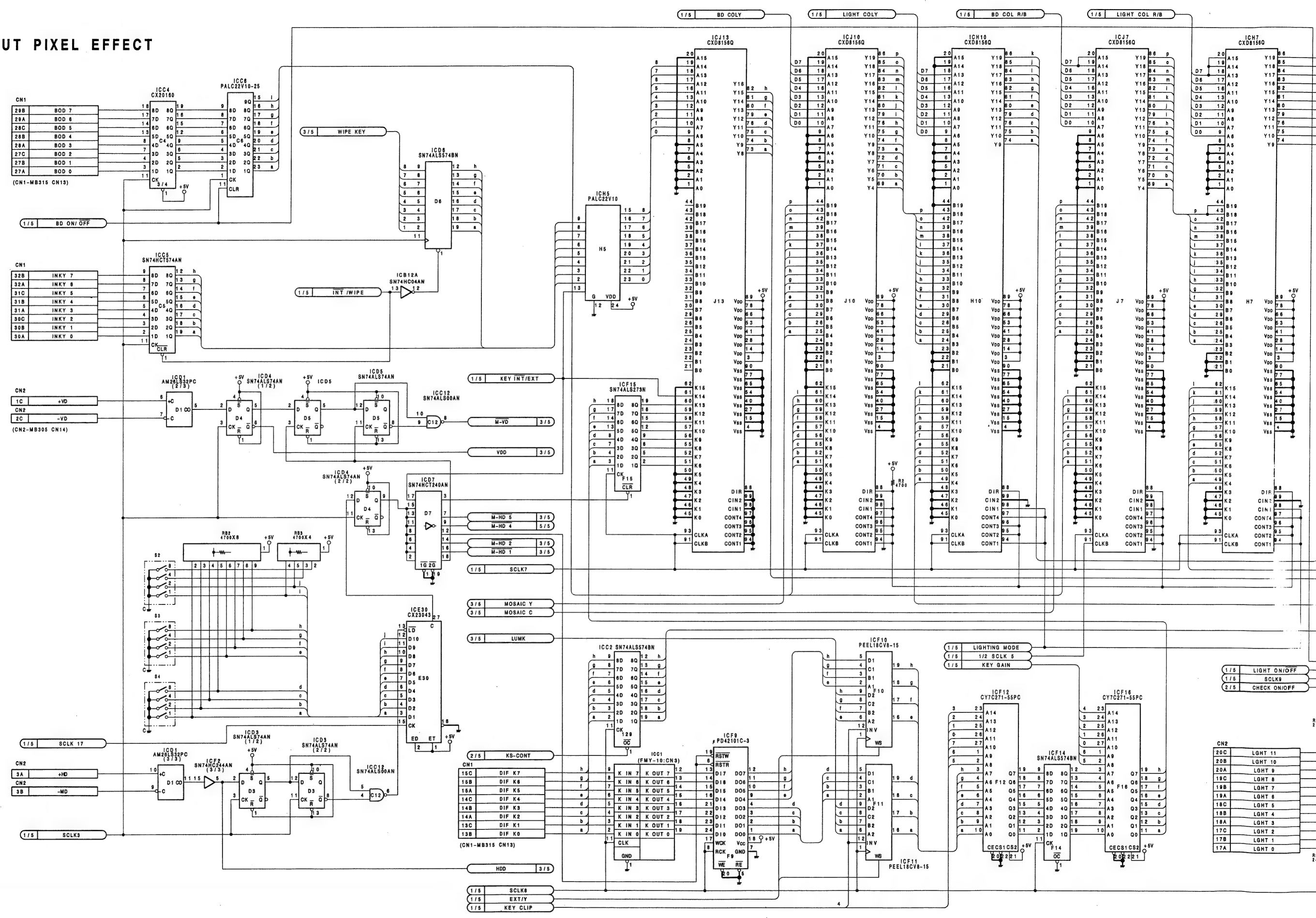


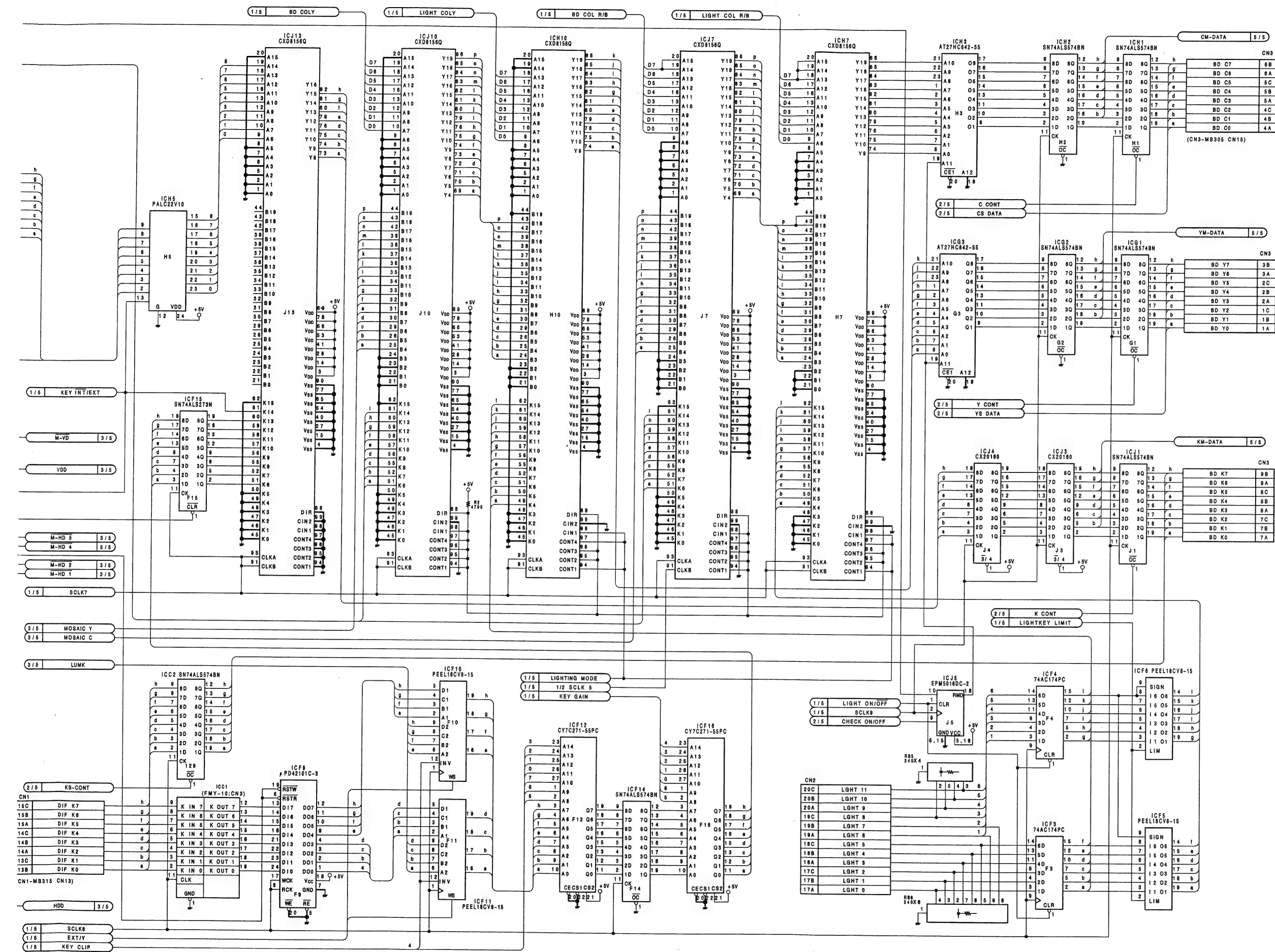
DPR-42;INPUT PIXEL EFFECT





DPR-42;INPUT PIXEL EFFECT

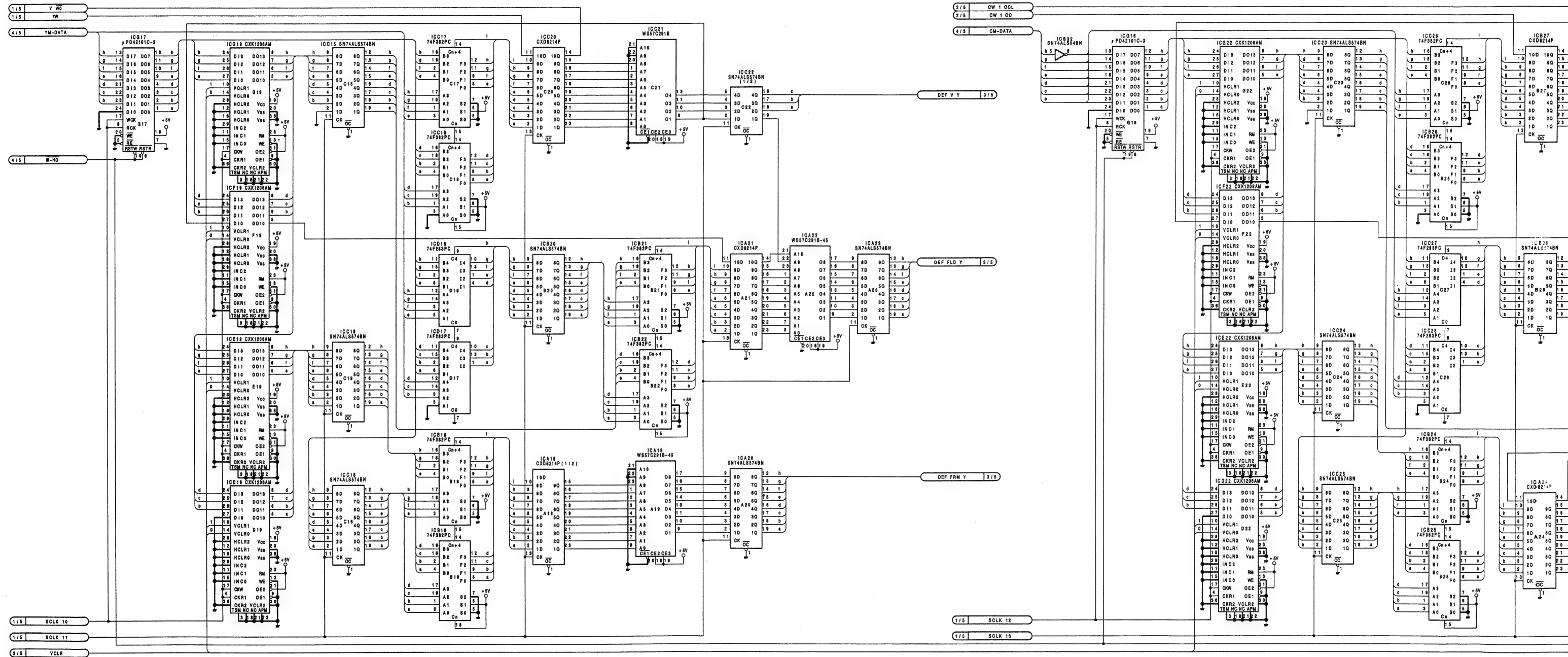




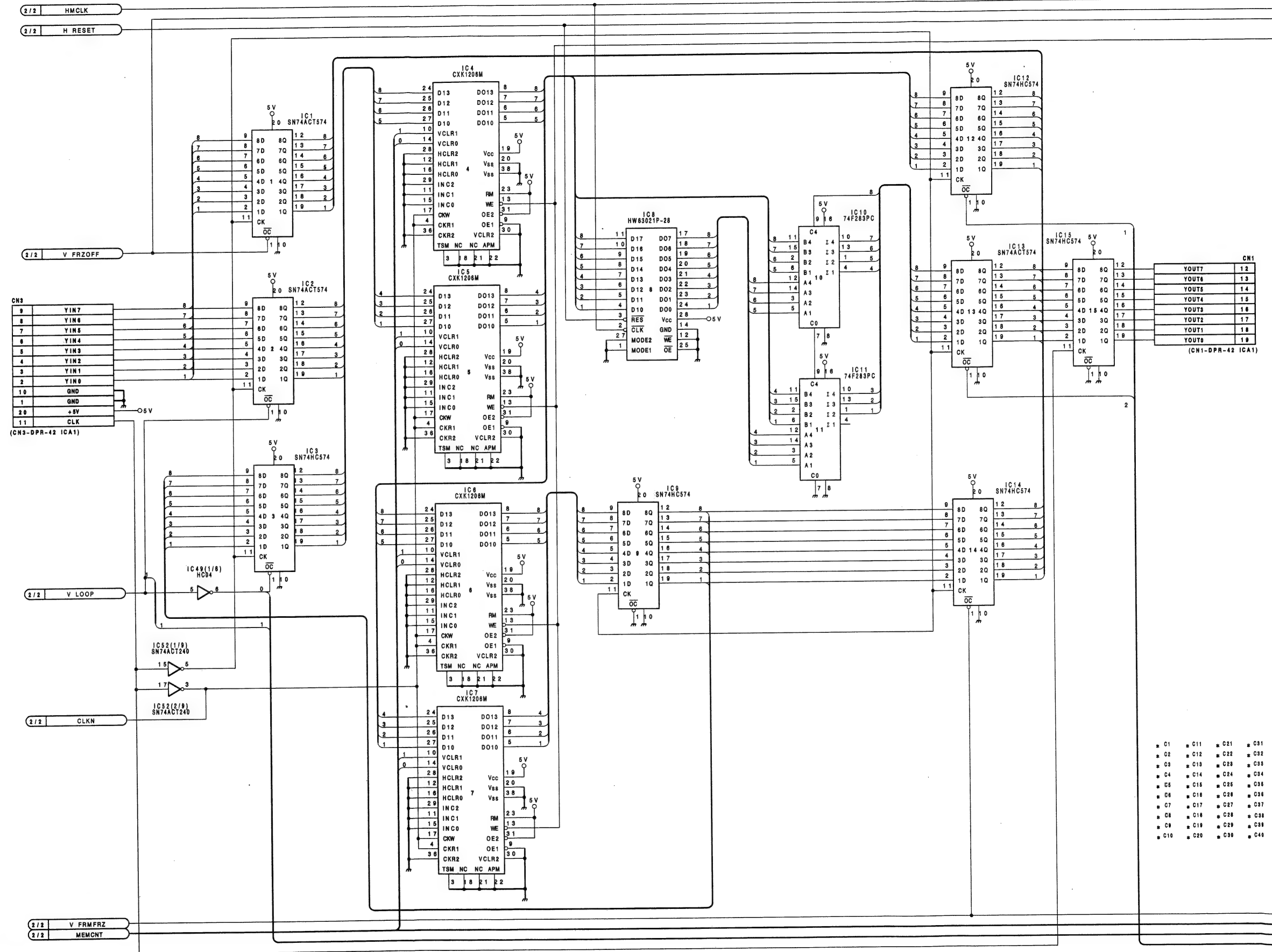
DPR-42(4/5)

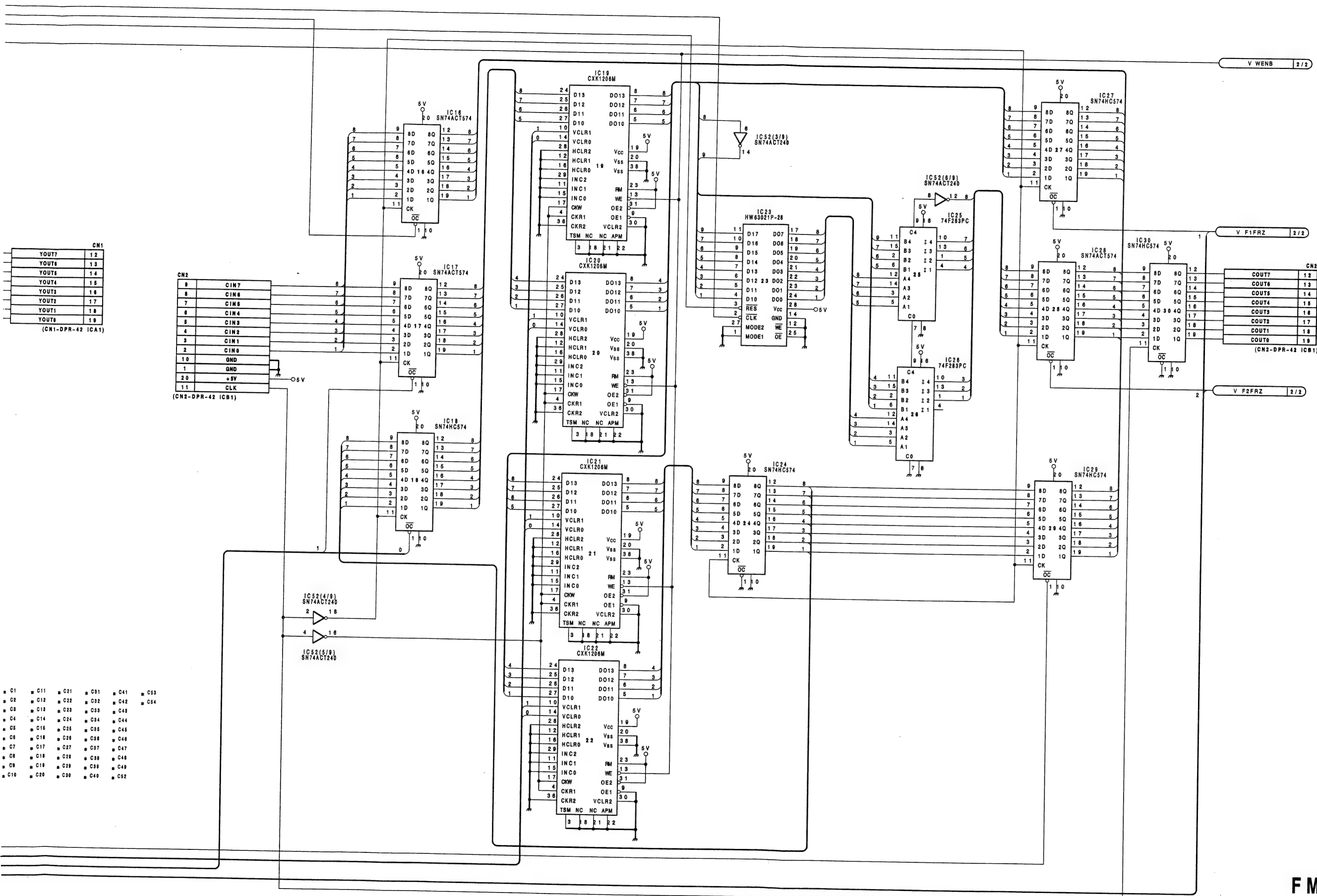
1-644-036-11
DME-5000
BKDM-5000K1

DPR-42;INPUT PIXEL EFFECT

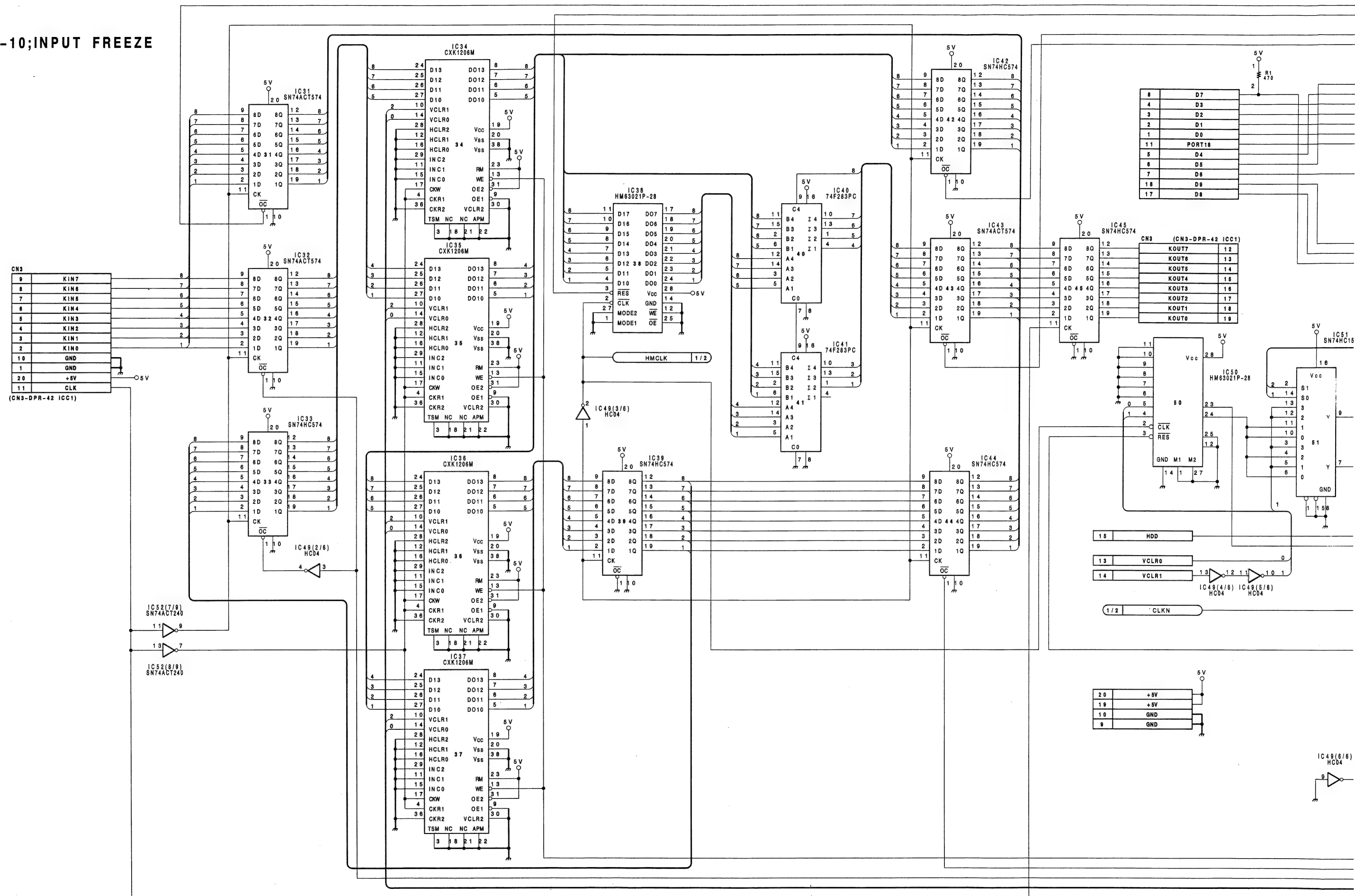


FMY-10; INPUT FREEZE





FMY-10; INPUT FREEZE



8-72

8-72

A

B

C

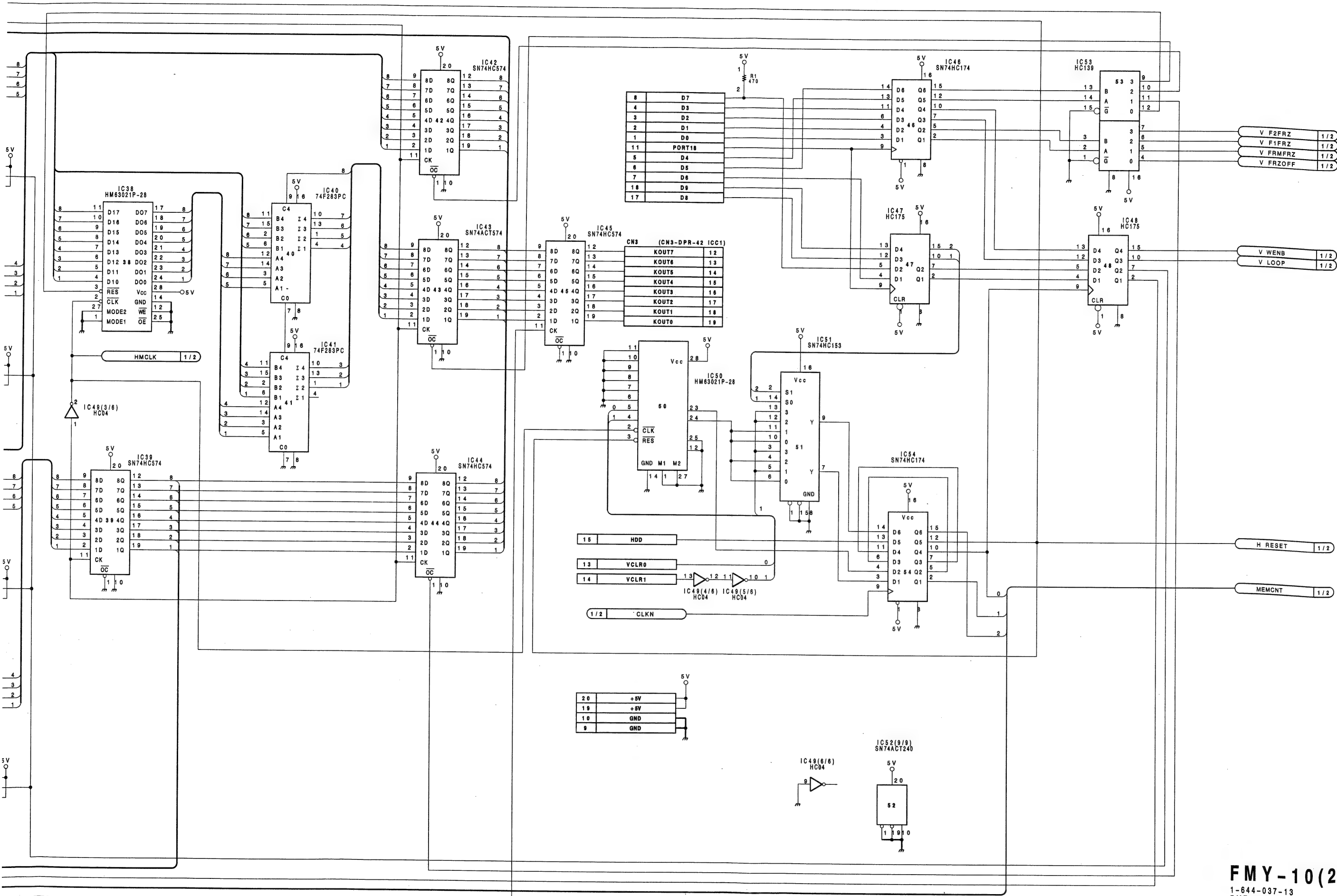
D

E

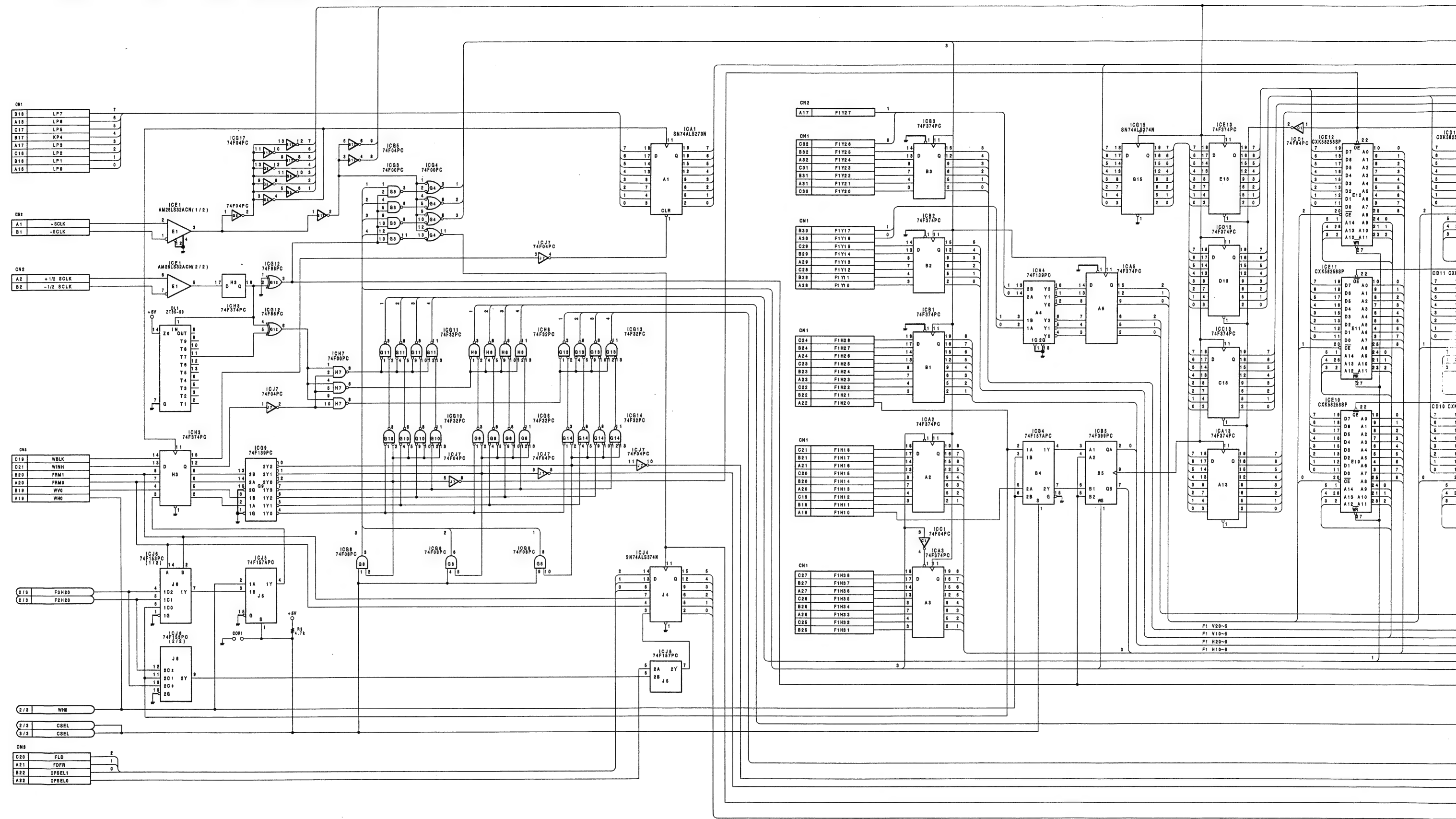
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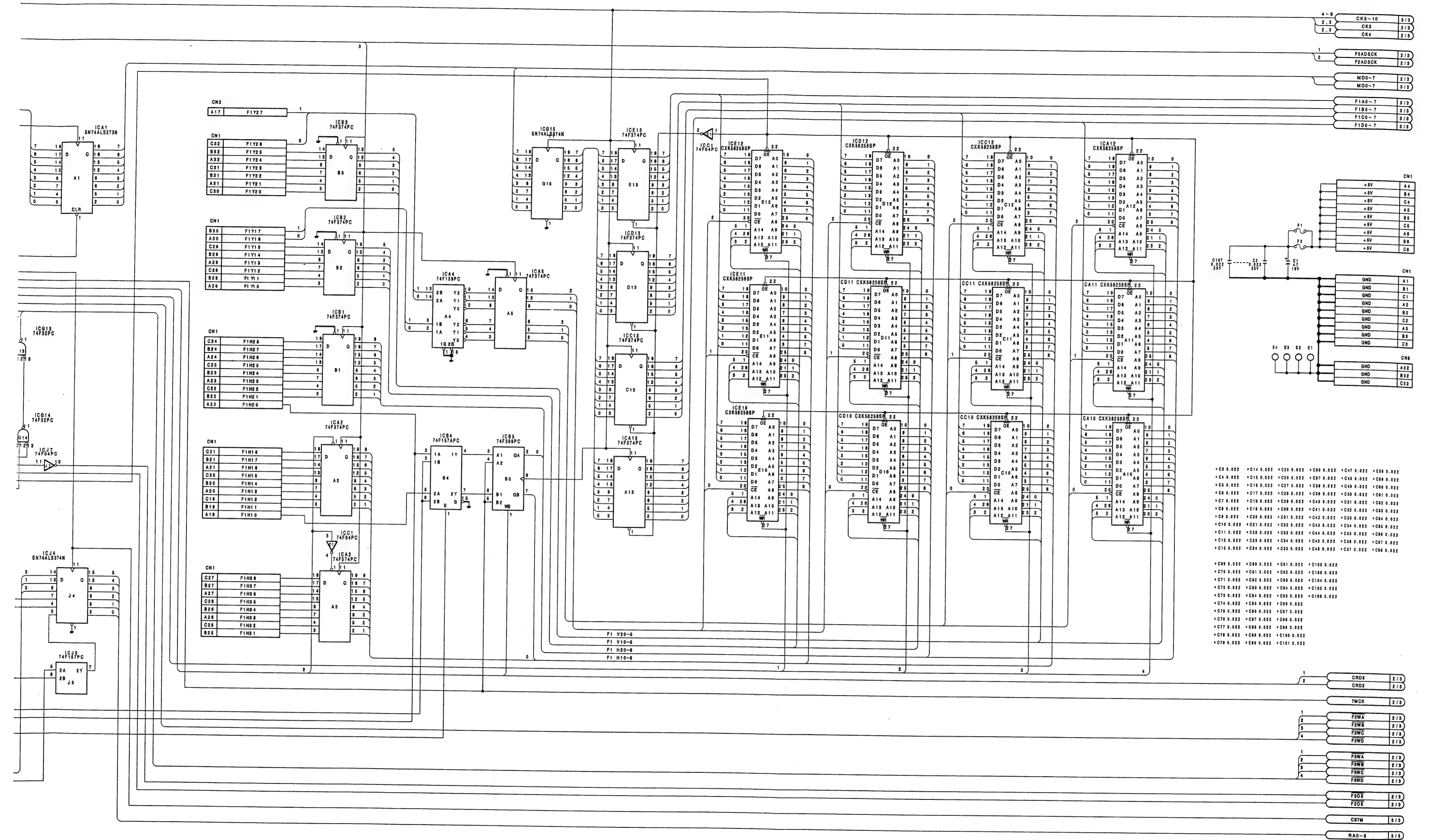
G

H

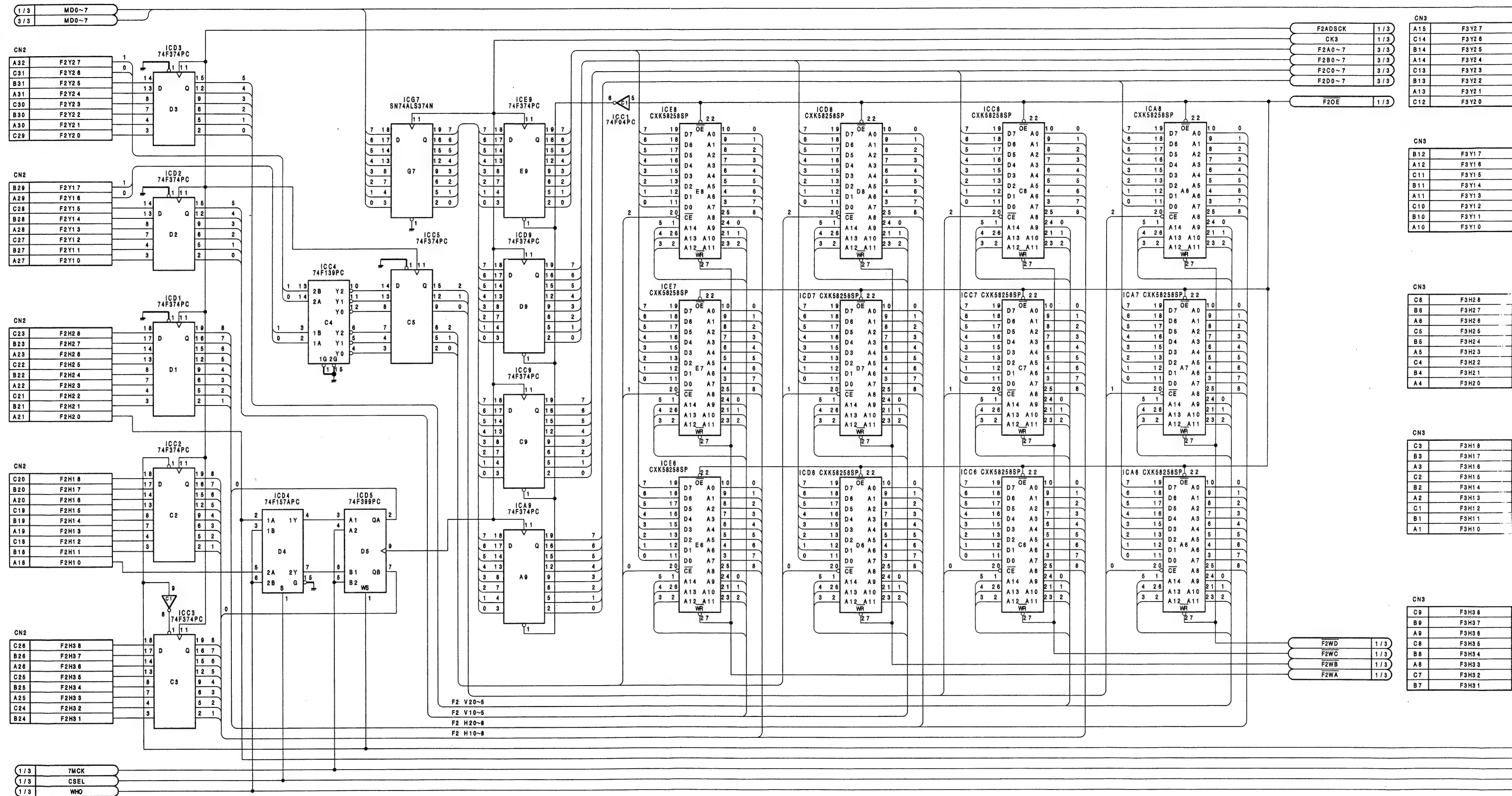


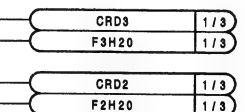
MEM-41;3 FIELD VIDEO MEMORY AND INTERPOLATOR





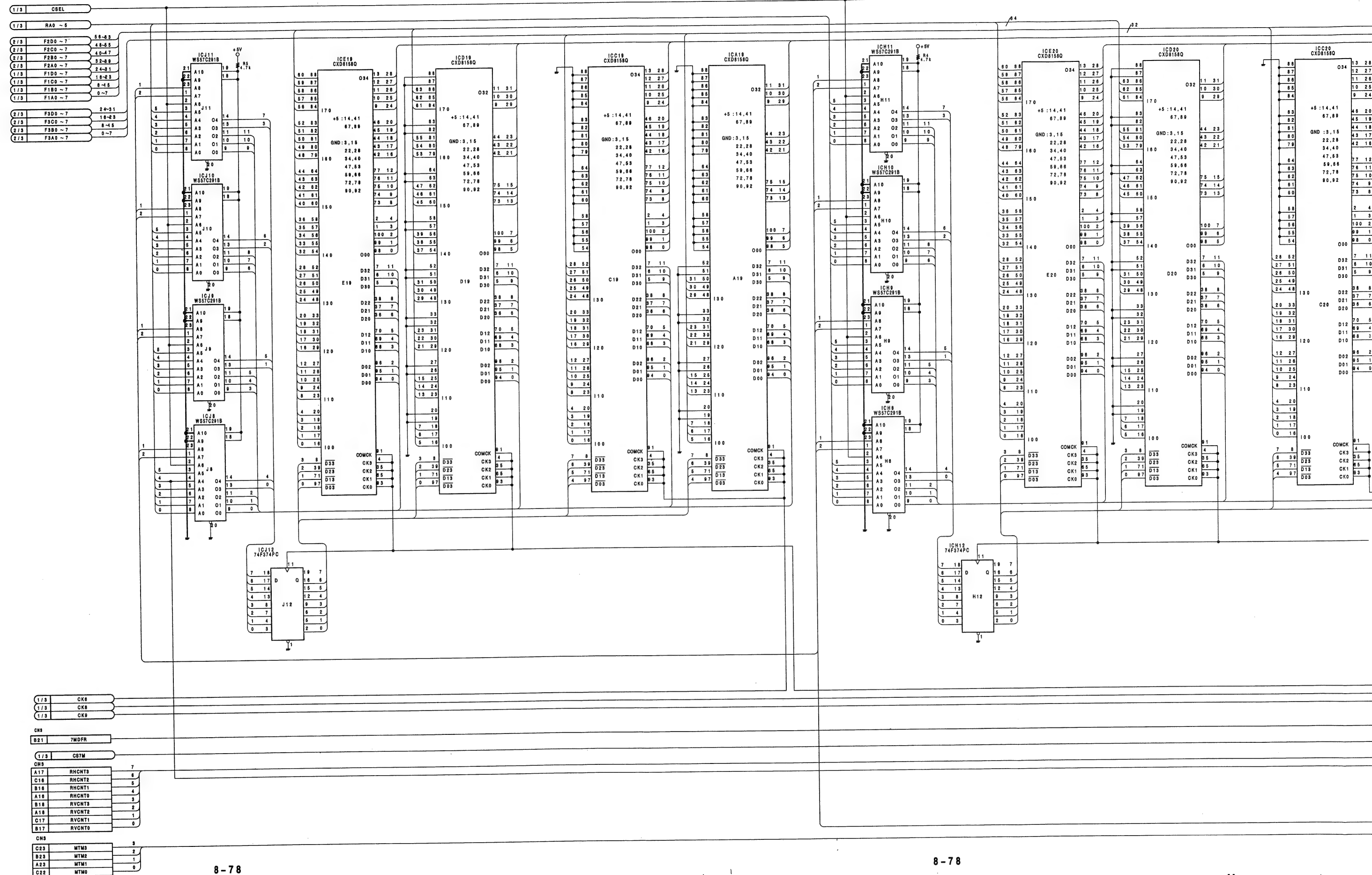
MEM-41;3 FIELD VIDEO MEMORY AND INTERPOLATOR

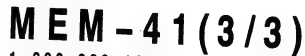




1-636-820-12
DME-5000

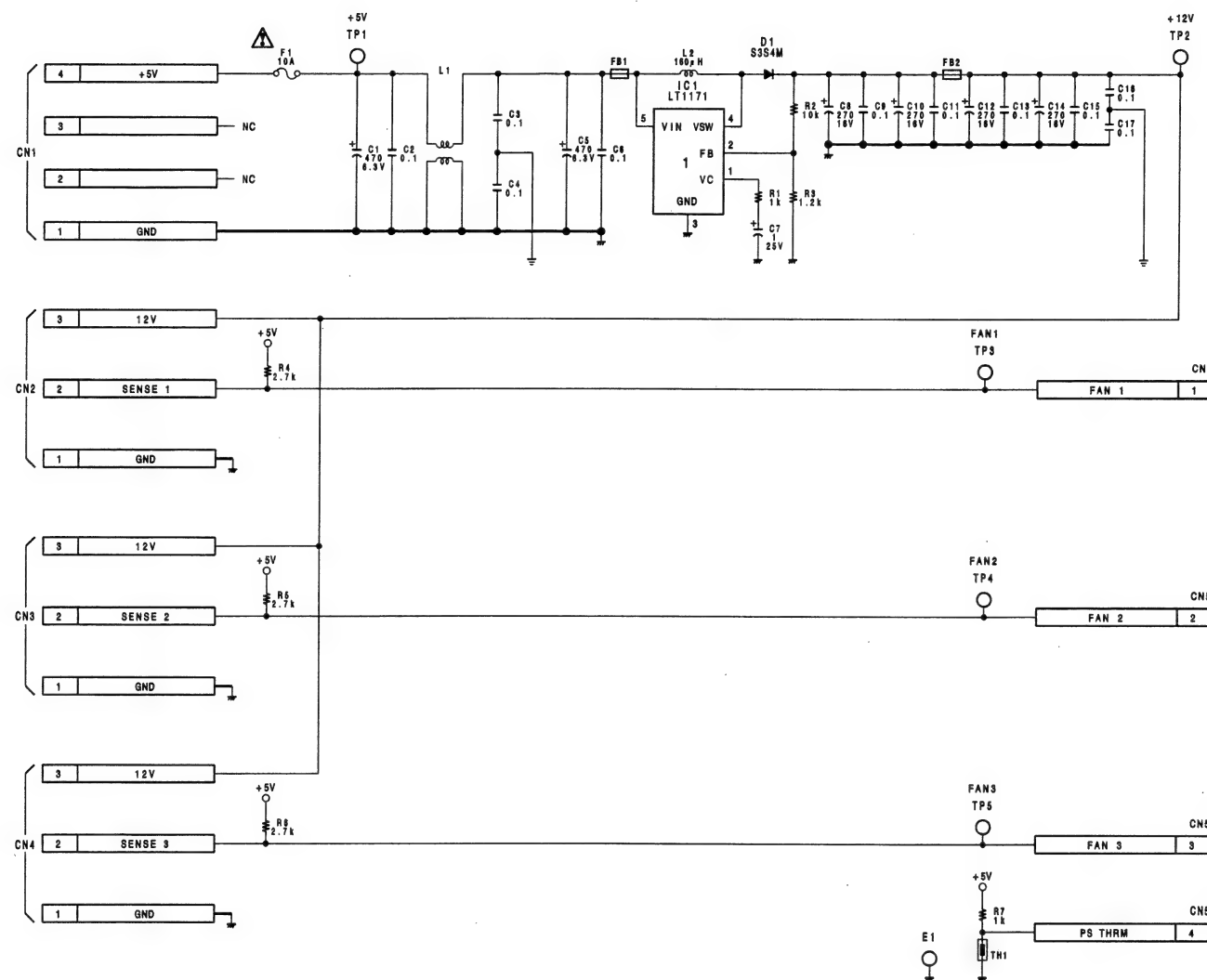
MEM-41;3 FIELD VIDEO MEMORY AND INTERPOLATOR





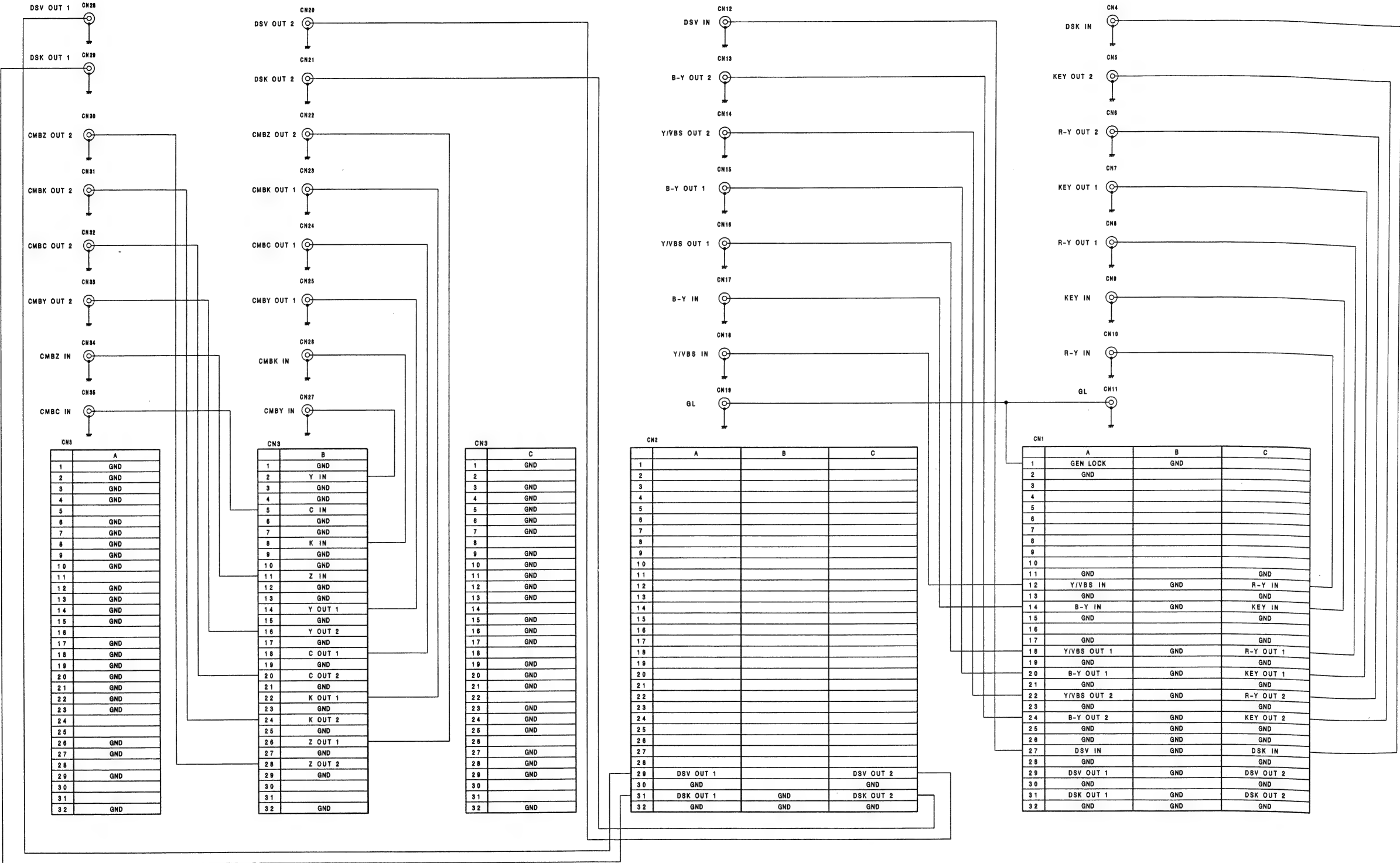
1-636-820-12
DME-5000

CN-456;POWER SUPPLY CONNECTOR BOARD



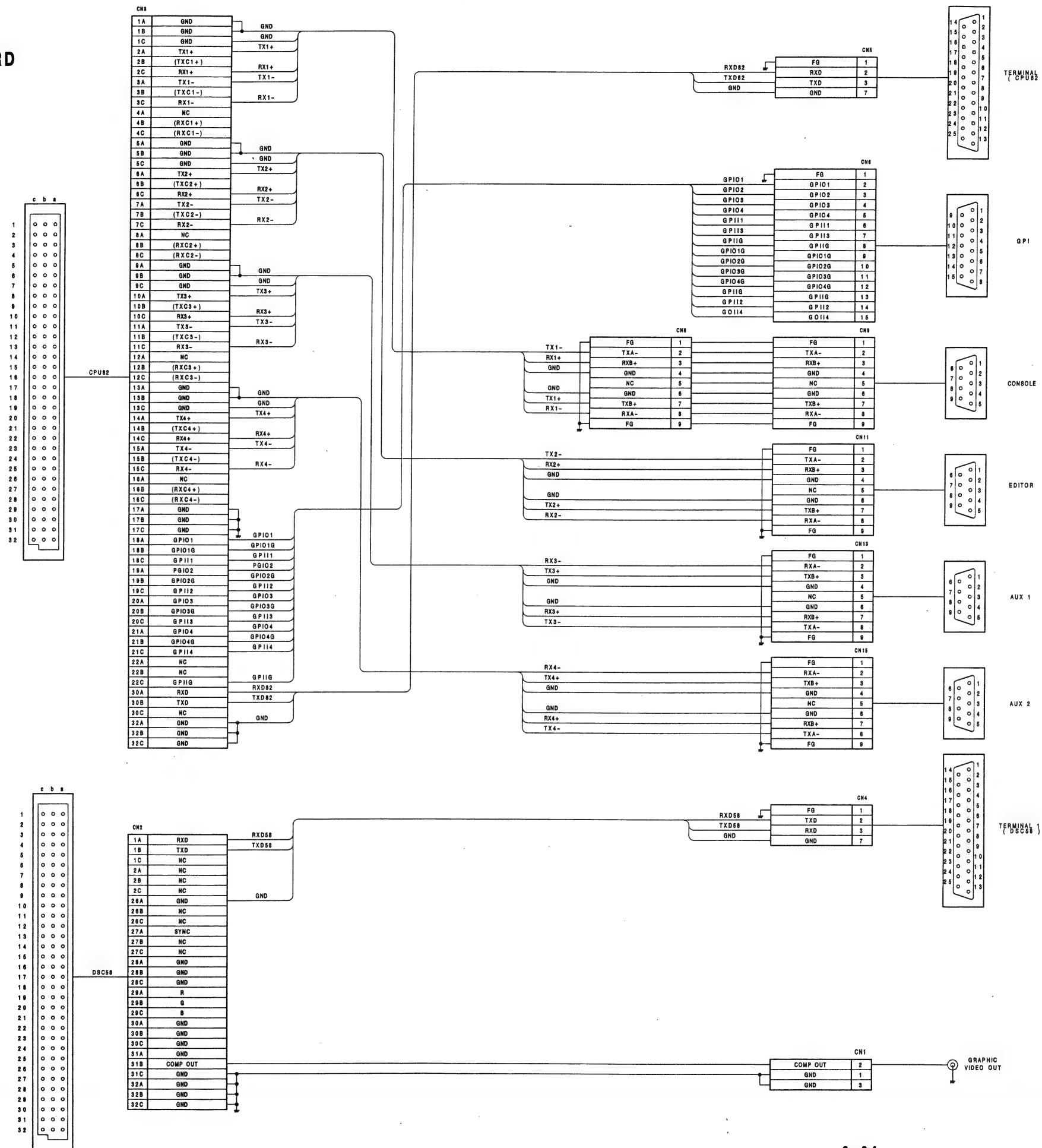
CN-456
1-636-522-11
DME-5000

CN-462;BNC CONNECTOR BOARD



CN-462
1-636-825-12
DME-5000

CN-463;D SUB CONNECTOR BOARD



CN-463
1-636-826-13
DME-5000

MB-305;MOTHER BOARD

MEM-41 (K)

MEM-41 (C)

MEM-41 (Y)

DLP-9

DPR-15

CN15			
A	B	C	
1	GND	GND	GND
2	GND	GND	GND
3	GND	GND	GND
4	+5V	+5V	+5V
5	+5V	+5V	+5V
6	+5V	+5V	+5V
7	CONT0	CONT1	CONT2
8			
9			
10			
11			
12			
13			
14			
15			
16	LPK0	LPK1	LPK2
17	LPK3	LPK4	LPK5
18	LPK6	LPK7	LPK8
19	F1H10	F1H11	F1H12
20	F1H13	F1H14	F1H15
21	F1H16	F1H17	F1H18
22	F1H20	F1H21	F1H22
23	F1H23	F1H24	F1H25
24	F1H26	F1H27	F1H28
25	F1H30	F1H31	F1H32
26	F1H33	F1H34	F1H35
27	F1H36	F1H37	F1H38
28	F1H39	F1H40	F1H41
29	F1V10	F1V11	F1V12
30	F1V13	F1V14	F1V15
31	F1V16	F1V17	F1V18
32	F1V20	F1V21	F1V22

CN22			
A	B	C	
1	GND	GND	GND
2	GND	GND	GND
3	GND	GND	GND
4	+5V	+5V	+5V
5	+5V	+5V	+5V
6	+5V	+5V	+5V
7	CONT0	CONT1	CONT2
8			
9			
10			
11			
12			
13			
14			
15			
16	LPC0	LPC1	LPC2
17	LPC3	LPC4	LPC5
18	LPC6	LPC7	LPC8
19	F1H10	F1H11	F1H12
20	F1H13	F1H14	F1H15
21	F1H16	F1H17	F1H18
22	F1H20	F1H21	F1H22
23	F1H23	F1H24	F1H25
24	F1H26	F1H27	F1H28
25	F1H30	F1H31	F1H32
26	F1H33	F1H34	F1H35
27	F1H36	F1H37	F1H38
28	F1H39	F1H40	F1H41
29	F1V10	F1V11	F1V12
30	F1V13	F1V14	F1V15
31	F1V16	F1V17	F1V18
32	F1V20	F1V21	F1V22

CN19			
A	B	C	
1	GND	GND	GND
2	GND	GND	GND
3	GND	GND	GND
4	+5V	+5V	+5V
5	+5V	+5V	+5V
6	+5V	+5V	+5V
7	CONT0	CONT1	CONT2
8			
9			
10			
11			
12			
13			
14			
15			
16	LPY0	LPY1	LPY2
17	LPY3	LPY4	LPY5
18	LPY6	LPY7	LPY8
19	F1H10	F1H11	F1H12
20	F1H13	F1H14	F1H15
21	F1H16	F1H17	F1H18
22	F1H20	F1H21	F1H22
23	F1H23	F1H24	F1H25
24	F1H26	F1H27	F1H28
25	F1H30	F1H31	F1H32
26	F1H33	F1H34	F1H35
27	F1H36	F1H37	F1H38
28	F1H39	F1H40	F1H41
29	F1V10	F1V11	F1V12
30	F1V13	F1V14	F1V15
31	F1V16	F1V17	F1V18
32	F1V20	F1V21	F1V22

CN18			
A	B	C	
1	GND	GND	GND
2	GND	GND	GND
3	GND	GND	GND
4	+5V	+5V	+5V
5	+5V	+5V	+5V
6	+5V	+5V	+5V
7	CONT0	CONT1	CONT2
8	HLP00	HLP01	HLP02
9	HLP03	HLP04	HLP05
10	HLP06	HLP07	HLP08
11	VLP00	VLP01	VLP02
12	VLP03	VLP04	VLP05
13	VLP06	VLP07	VLP08
14	VDF00	VDF01	VDF02
15	VDF03	VDF04	VDF05
16	VDF06	VDF07	VDF08
17	LPY0	LPY1	LPY2
18	LPY3	LPY4	LPY5
19	LPY6	LPY7	LPY8
20	LPC0	LPC1	LPC2
21	LPC3	LPC4	LPC5
22	LPC6	LPC7	LPC8
23	LPK0	LPK1	LPK2
24	LPK3	LPK4	LPK5
25	LPK6	LPK7	LPK8
26			
27			
28			
29			
30	(+12V)	(+12V)	(+12V)
31	(AGND)	(AGND)	(AGND)
32	(-12V)	(-12V)	(-12V)

CN13			
A	B	C	
1	GND	GND	GND
2	GND	GND	GND
3	GND	GND	GND
4	+5V	+5V	+5V
5	+5V	+5V	+5V
6	+5V	+5V	+5V
7	DPR0	DPR1	DPR2
8	DIFY0	DIFY1	DIFY2
9	DIFY3	DIFY4	DIFY5
10	DIFY6	DIFY7	DIFY8
11	DIFC0	DIFC1	DIFC2
12	DIFC3	DIFC4	DIFC5
13	DIFC6	DIFC7	DIFC8
14	DIFK0	DIFK1	DIFK2
15	DIFK3	DIFK4	DIFK5
16	DIFK6	DIFK7	DIFK8
17			
18			
19			
20			
21			
22			
23			
24	WPK0	WPK1	WPK2
25	WPK3	WPK4	WPK5
26	WPK6	WPK7	WPK8
27	BOD0	BOD1	BOD2
28	BOD3	BOD4	BOD5
29	BOD6	BOD7	BOD8
30	INKY0	INKY1	INKY2
31	INKY3	INKY4	INKY5
32	INKY6	INKY7	INKY8

CN26			
A	B	C	
1	+SCLK	-SCLK	+VD
2	+1/2SCLK	-1/2SCLK	-VD
3	+HD	-HD	1/4SCLK
4	RESETH	BUSBP	SYNC
5	D0N	D0M	D0N
6	D0N	D0M	D0N
7	D0N	D0M	D0N
8	D0N	D0M	D0N
9	D0N	D0M	D0N
10	D0N	D0M	D0N
11	A0	A4	A5
12	A0	A7	A8
13	A0	A10	A11
14	A12	A13	A14
15	A15	A16	A17
16	A18	MEMW	MEMR
17	F1V27	F1SP1	F1SP2
18	F2H10	F2H11	F2H12
19	F2H13	F2H14	F2H15
20	F2H16	F2H17	F2H18
21	F2H20	F2H21	F2H22
22	F2H23	F2H24	F2H25
23	F2H26	F2H27	F2H28
24	F2H30	F2H31	F2H32
25	F2H33	F2H34	F2H35
26	F2H36	F2H37	F2H38
27	F2V10	F2V11	F2V12
28	F2V13	F2V14	F2V15
29	F2V16	F2V17	F2V18
30	F2V20	F2V21	F2V22
31	F2V23	F2V24	F2V25
32	F2V27	F2SP1	F2SP2

CN23			
A	B	C	
1	+SCLK	-SCLK	+VD
2	+1/2SCLK	-1/2SCLK	-VD
3	+HD	-HD	1/4SCLK
4	RESETH	BUSBP	SYNC
5	D0N	D0M	D0N
6	D0N	D0M	D0N
7	D0N	D0M	D0N
8	D0N	D0M	D0N
9	D0N	D0M	D0N
10	D0N	D0M	D0N
11	A0	A4	A5
12	A0	A7	A8
13	A0	A10	A11
14	A12	A13	A14
15	A15	A16	A17
16	A18	MEMW	MEMR
17	F1V27	F1SP1	F1SP2
18	F2H10	F2H11	F2H12
19	F2H13	F2H14	F2H15
20	F2H16	F2H17	F2H18
21	F2H20	F2H21	F2H22
22	F2H23	F2H24	F2H25
23	F2H26	F2H27	F2H28
24	F2H30	F2H31	F2H32
25	F2H33	F2H34	F2H35
26	F2H36	F2H37	F2H38
27	F2V10	F2V11	F2V12
28	F2V13	F2V14	F2V15
29	F2V16	F2V17	F2V18
30	F2V20	F2V21	F2V22
31	F2V23	F2V24	F2V25
32	F2V27	F2SP1	F2SP2

CN28			
A	B	C	
1	+SCLK	-SCLK	+VD
2	+1/2SCLK	-1/2SCLK	-VD
3	+HD	-HD	1/4SCLK
4	RESETH	BUSBP	SYNC
5	D0N	D0M	D0N
6	D0N	D0M	D0N
7	D0N	D0M	D0N
8	D0N	D0M	D0N
9	D0N	D0M	D0N
10	D0N	D0M	D0N
11	A0	A4	A5
12	A0	A7	A8
13	A0	A10	A11
14	A12	A13	A14
15	A15	A16	A17
16	A18	MEMW	MEMR
17	F1V27	F1SP1	F1SP2
18	F2H10	F2H11	F2H12
19	F2H13	F2H14	F2H15
20	F2H16	F2H17	F2H18
21	F2H20	F2H21	F2H22
22	F2H23	F2H24	F2H25
23	F2H26	F2H27	F2H28
24	F2H30	F2H31	F2H32
25	F2H33	F2H34	F2H35
26	F2H36	F2H37	F2H38
27	F2V10	F2V11	F2V12
28	F2V13	F2V14	F2V15
29	F2V16	F2V17	F2V18
30	F2V20	F2V21	F2V22
31	F2V23	F2V24	F2V25
32	F2V27	F2SP1	F2SP2

CN17			
A	B	C	
1	+SCLK	-SCLK	+VD
2	+1/2SCLK	-1/2SCLK	-VD
3	+HD	-HD	1/4SCLK
4	RESETH	BUSBP	SYNC
5	D0N	D0M	D0N
6	D0N	D0M	D0N
7	D0N	D0M	D0N
8	D0N	D0M	D0N
9	D0N	D0M	D0N
10	D0N	D0M	D0N
11	A0	A4	A5
12	A0	A7	A8
13	A0	A10	A11
14	A12	A13	A14
15	A15	A16	A17
16	A18	MEMW	MEMR
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			

CN14			
A	B	C	
1	+SCLK	-SCLK	+VD
2	+1/2SCLK	-1/2SCLK	-VD
3	+HD	-HD	1/4SCLK
4	RESETH	BUSBP	SYNC
5	D0N	D0M	D0N
6	D0N	D0M	D0N
7	D0N	D0M	D0N
8	D0N	D0M	D0N
9	D0N	D0M	D0N
10	D0N	D0M	D0N
11	A0	A4	A5
12	A0	A7	A8
13	A0	A10	A11
14	A12	A13	A14
15	A15	A16	A17
16	A18	MEMW	MEMR
17	LGHT0	LGHT1	LGHT2
18	LGHT3	LGHT4	LGHT5
19	LGHT6	LGHT7	LGHT8
20	LGHT9	LGHT10	LGHT11
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			

CN27				
	A	B	C	
2/2 F3HV	1	F3H10	F3H11	F3H12
	2	F3H13	F3H14	F3H15
	3	F3H16	F3H17	F3H18
	4	F3H20	F3H21	F3H22
	5	F3H23	F3H24	F3H25
	6	F3H26	F3H27	F3H28
	7	F3H30	F3H31	F3H32
	8	F3H33	F3H34	F3H35
	9	F3H36	F3H37	F3H38
	10	F3V10	F3V11	F3V12
2/2 RHVCT	11	F3V13	F3V14	F3V15
	12	F3V16	F3V17	F3V18
	13	F3V21	F3V22	F3V23
	14	F3V24	F3V25	F3V26
	15	F3V27	F3SP1	F3SP2
	16	RHCNT0	RHCNT1	RHCNT2
	17	RHCNT3	RVCNT0	RVCNT1
	18	RVCNT2	RVCNT3	RVCNT4
2/2 MEM CNT	19	WBLK	WBLK	WBLK
	20	FRM0	FRM1	FRM2
	21	OPSEL0	OPSEL1	OPSEL2
	22	MTM0	MTM1	MTM2
	23	MTM3	MTM4	MTM5
	24			
	25			
	26	MEMK0	MEMK1	MEMK2
	27	MEMK3	MEMK4	MEMK5
	28	MEMK6	MEMK7	
29				
30				
31				

Pin	74VHC00	74VHC00	74VHC00	74VHC00
1	A	B	A	B
2	+V	-V	+V	-V
3	+HD	+HD	+HD	+HD
4	RESETH	RESETH	RESETH	RESETH
5	D ₀ N	D ₀ N	D ₀ N	D ₀ N
6	D ₁ N	D ₁ N	D ₁ N	D ₁ N
7	D ₂ N	D ₂ N	D ₂ N	D ₂ N
8	D ₃ N	D ₃ N	D ₃ N	D ₃ N
9	D ₄ N	D ₄ N	D ₄ N	D ₄ N
10	D ₅ N	D ₅ N	D ₅ N	D ₅ N
11	A ₃	A ₃	A ₃	A ₃
12	A ₂	A ₂	A ₂	A ₂
13	A ₁	A ₁	A ₁	A ₁
14	A ₀	A ₀	A ₀	A ₀
15	MEMW	MEMW	MEMW	MEMW
16	MEMR	MEMR	MEMR	MEMR
17	RCM0	RCM0	RCM0	RCM0
18	RCM1	RCM1	RCM1	RCM1
19	RCM2	RCM2	RCM2	RCM2
20	RCM3	RCM3	RCM3	RCM3
21	RCM4	RCM4	RCM4	RCM4
22	RCM5	RCM5	RCM5	RCM5
23	RCM6	RCM6	RCM6	RCM6
24	RCM7	RCM7	RCM7	RCM7
25	MEMY0	MEMY0	MEMY0	MEMY0
26	MEMY1	MEMY1	MEMY1	MEMY1
27	MEMY2	MEMY2	MEMY2	MEMY2
28	MEMY3	MEMY3	MEMY3	MEMY3
29	MEMY4	MEMY4	MEMY4	MEMY4
30	MEMY5	MEMY5	MEMY5	MEMY5
31	MEMY6	MEMY6	MEMY6	MEMY6
32	MEMY7	MEMY7	MEMY7	MEMY7

The image displays three separate wiring harness diagrams, each consisting of a pinout table and a physical harness representation.

CR12

B	C
BDY1	BDY2
BDY4	BDY5
BDY7	
SDC1	SDC2
SDC4	SDC5
SDC7	
BDK1	BDK2
BDK4	BDK5
BDK7	
MOT1	MOT2
GND	GND

A	B	C
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
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22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32	GND	GND

CR8 +1

A	B	C
1		
2		
3		
4		
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6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32	GND	GND

CR5 +1

A	B	C
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
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23		
24		
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26		
27		
28		
29		
30		
31		
32	GND	GND

CR5 +1

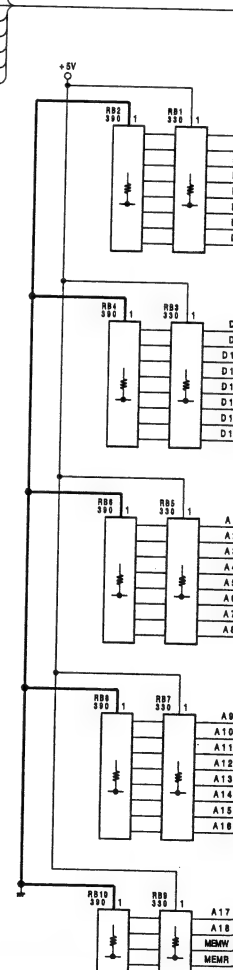
A	B	C
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26		
27		
28		
29		
30		
31		
32	GND	GND

CR5 +1

A	B	C
1		
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12		
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14		
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24		
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26		
27		
28		
29		
30		
31		
32	GND	GND

CR5 +1

A	B	C
1		
2		
3		



MB-305(1/2)
1-636-824-11
DME-5000

MB-305;MOTHER BOARD

CPU-82

DSC-58

ALU-15

ALU-14

ALU-13

CN88			
A	B	C	
1	GND	GND	
2	GND	GND	
3	GND	GND	
4	+5V	+5V	
5	+5V	+5V	
6	+5V	+5V	
7	+5V	+5V	
8	FAN1	FAN2	FAN3
9	FAN1	FAN2	FAN3
10	PS THRM	GND	
11			
12			
13			
14			
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28			
29			
30			
31			
32			

CN89			
A	B	C	
1	GND	GND	
2	GND	GND	
3	GND	GND	
4	+5V	+5V	
5	+5V	+5V	
6	+5V	+5V	
7	+5V	+5V	
8	RDAX0	RDAX1	RDAX2
9	RDAX3	RDAX4	RDAX5
10	RDAX6	RDAX7	RDAX8
11	RDAX9	RDAX10	RDAX11
12	RDAX12	RDAX13	RDAX14
13	RDAX15	RDAX16	RDAX17
14	RDAX18	RDAX19	RDAX20
15	RDAX21	RDAX22	RDAX23
16	RDAX24	RDAX25	RDAX26
17	GRPY0	GRPY1	GRPY2
18	GRPY3	GRPY4	GRPY5
19	GRPY6	GRPY7	GRPY8
20	GRPY9	GRPY10	GRPY11
21	GRPY12	GRPY13	GRPY14
22	GRPY15	GRPY16	GRPY17
23	GRPY18	GRPY19	GRPY20
24	GRPY21	GRPY22	GRPY23
25	GRPY24	GRPY25	GRPY26
26	GRPY27	GRPY28	GRPY29
27	GRPY30	GRPY31	GRPY32
28	GRPY33	GRPY34	GRPY35
29	GRPY36	GRPY37	GRPY38
30	GRPY39	GRPY40	GRPY41
31	GRPY42	GRPY43	GRPY44
32	GRPY45	GRPY46	GRPY47

CN90			
A	B	C	
1	GND	GND	
2	GND	GND	
3	GND	GND	
4	+5V	+5V	
5	+5V	+5V	
6	+5V	+5V	
7	+5V	+5V	
8	RDAX0	RDAX1	RDAX2
9	RDAX3	RDAX4	RDAX5
10	RDAX6	RDAX7	RDAX8
11	RDAX9	RDAX10	RDAX11
12	RDAX12	RDAX13	RDAX14
13	RDAX15	RDAX16	RDAX17
14	RDAX18	RDAX19	RDAX20
15	RDAX21	RDAX22	RDAX23
16	RDAX24	RDAX25	RDAX26
17	EXPX0	EXPX1	EXPX2
18	EXPX3	EXPX4	EXPX5
19	EXPX6	EXPX7	EXPX8
20	EXPX9	EXPX10	EXPX11
21	EXPX12	EXPX13	EXPX14
22	EXPX15	EXPX16	EXPX17
23	EXPX18	EXPX19	EXPX20
24	EXPX21	EXPX22	EXPX23
25	EXPX24	EXPX25	EXPX26
26	EXPX27	EXPX28	EXPX29
27	EXPX30	EXPX31	EXPX32
28	EXPX33	EXPX34	EXPX35
29	EXPX36	EXPX37	EXPX38
30	EXPX39	EXPX40	EXPX41
31	EXPX42	EXPX43	EXPX44
32	EXPX45	EXPX46	EXPX47

CN91			
A	B	C	
1	GND	GND	
2	GND	GND	
3	GND	GND	
4	+5V	+5V	
5	+5V	+5V	
6	+5V	+5V	
7	+5V	+5V	
8	RDAX0	RDAX1	RDAX2
9	RDAX3	RDAX4	RDAX5
10	RDAX6	RDAX7	RDAX8
11	RDAX9	RDAX10	RDAX11
12	RDAX12	RDAX13	RDAX14
13	RDAX15	RDAX16	RDAX17
14	RDAX18	RDAX19	RDAX20
15	RDAX21	RDAX22	RDAX23
16	RDAX24	RDAX25	RDAX26
17	EXPX0	EXPX1	EXPX2
18	EXPX3	EXPX4	EXPX5
19	EXPX6	EXPX7	EXPX8
20	EXPX9	EXPX10	EXPX11
21	EXPX12	EXPX13	EXPX14
22	EXPX15	EXPX16	EXPX17
23	EXPX18	EXPX19	EXPX20
24	EXPX21	EXPX22	EXPX23
25	EXPX24	EXPX25	EXPX26
26	EXPX27	EXPX28	EXPX29
27	EXPX30	EXPX31	EXPX32
28	EXPX33	EXPX34	EXPX35
29	EXPX36	EXPX37	EXPX38
30	EXPX39	EXPX40	EXPX41
31	EXPX42	EXPX43	EXPX44
32	EXPX45	EXPX46	EXPX47

CN92			
A	B	C	
1	GND	GND	
2	GND	GND	
3	GND	GND	
4	+5V	+5V	
5	+5V	+5V	
6	+5V	+5V	
7	+5V	+5V	
8	RDAX0	RDAX1	RDAX2
9	RDAX3	RDAX4	RDAX5
10	RDAX6	RDAX7	RDAX8
11	RDAX9	RDAX10	RDAX11
12	RDAX12	RDAX13	RDAX14
13	RDAX15	RDAX16	RDAX17
14	RDAX18	RDAX19	RDAX20
15	RDAX21	RDAX22	RDAX23
16	RDAX24	RDAX25	RDAX26
17	EXPX0	EXPX1	EXPX2
18	EXPX3	EXPX4	EXPX5
19	EXPX6	EXPX7	EXPX8
20	EXPX9	EXPX10	EXPX11
21	EXPX12	EXPX13	EXPX14
22	EXPX15	EXPX16	EXPX17
23	EXPX18	EXPX19	EXPX20
24	EXPX21	EXPX22	EXPX23
25	EXPX24	EXPX25	EXPX26
26	EXPX27	EXPX28	EXPX29
27	EXPX30	EXPX31	EXPX32
28	EXPX33	EXPX34	EXPX35
29	EXPX36	EXPX37	EXPX38
30	EXPX39	EXPX40	EXPX41
31	EXPX42	EXPX43	EXPX44
32	EXPX45	EXPX46	EXPX47

CN93			
A	B	C	
1	+SCLK	-SCLK	
2	+1/2SCLK	-1/2SCLK	
3	+HD	-HD	1/4SCLK
4	RESETH	BUSBP	SYN
5	D ₀ N	D ₀ N	D ₀ N
6	D ₁ N	D ₁ N	D ₁ N
7	D ₂ N	D ₂ N	D ₂ N
8	D ₃ N	D ₃ N	D ₃ N
9	D ₄ N	D ₄ N	D ₄ N
10	D ₅ N	D ₅ N	D ₅ N
11	A ₀	A ₀	A ₀
12	A ₁	A ₁	A ₁
13	A ₂	A ₂	A ₂
14	A ₃	A ₃	A ₃
15	A ₄	A ₄	A ₄
16	A ₅	A ₅	A ₅
17	A ₆	A ₆	A ₆
18	A ₇	A ₇	A ₇
19	A ₈	A ₈	A ₈
20	A ₉	A ₉	A ₉
21	A ₁₀	A ₁₀	A ₁₀
22	A ₁₁	A ₁₁	A ₁₁
23	A ₁₂	A ₁₂	A ₁₂
24	A ₁₃	A ₁₃	A ₁₃
25	A ₁₄	A ₁₄	A ₁₄
26	A ₁₅	A ₁₅	A ₁₅
27	A ₁₆	A ₁₆	A ₁₆
28	A ₁₇	A ₁₇	A ₁₇
29	A ₁₈	A ₁₈	A ₁₈
30	MEMN	MEMN	MEMN
31	MEMN	MEMN	MEMN
32	MEMN	MEMN	MEMN

CN94			
A	B	C	
1	+SCLK	-SCLK	
2	+1/2SCLK	-1/2SCLK	
3	+HD	-HD	1/4SCLK
4	RESETH	BUSBP	SYN
5	D ₀ N	D ₀ N	D ₀ N
6	D ₁ N	D ₁ N	D ₁ N
7	D ₂ N	D ₂ N	D ₂ N
8	D ₃ N	D ₃ N	D ₃ N
9	D ₄ N	D ₄ N	D ₄ N
10	D ₅ N	D ₅ N	D ₅ N
11	A ₀	A ₀	A ₀
12	A ₁	A ₁	A ₁
13	A ₂	A ₂	A ₂
14	A ₃	A ₃	A ₃
15	A ₄	A ₄	A ₄
16	A ₅	A ₅	A ₅
17	A ₆	A ₆	A ₆
18	A ₇	A ₇	A ₇
19	A ₈	A ₈	A ₈
20	A ₉	A ₉	A ₉
21	A ₁₀	A ₁₀	A ₁₀
22	A ₁₁	A ₁₁	A ₁₁
23	A ₁₂	A ₁₂	A ₁₂
24	A ₁₃	A ₁₃	A ₁₃
25	A ₁₄	A ₁₄	A ₁₄
26	A ₁₅	A ₁₅	A ₁₅
27	A ₁₆	A ₁₆	A ₁₆
28	A ₁₇	A ₁₇	A ₁₇
29	A ₁₈	A ₁₈	A ₁₈
30	MEMN	MEMN	MEMN
31	MEMN	MEMN	MEMN
32	MEMN	MEMN	MEMN

CN95			
A	B	C	
1	+SCLK	-SCLK	
2	+1/2SCLK	-1/2SCLK	
3	+HD	-HD	1/4SCLK
4	RESETH	BUSBP	SYN
5	D ₀ N	D ₀ N	D ₀ N
6	D ₁ N	D ₁ N	D ₁ N
7	D ₂ N	D ₂ N	D ₂ N
8	D ₃ N	D ₃ N	D ₃ N
9	D ₄ N	D ₄ N	D ₄ N
10	D ₅ N	D ₅ N	D ₅ N
11	A ₀	A ₀	A ₀
12	A ₁	A ₁	A ₁
13	A ₂	A ₂	A ₂
14	A ₃	A ₃	A ₃
15	A ₄	A ₄	A ₄
16	A ₅	A ₅	A ₅
17	A ₆	A ₆	A ₆
18	A ₇	A ₇	A ₇
19	A ₈	A ₈	A ₈
20	A ₉	A ₉	A ₉
21	A ₁₀	A ₁₀	A ₁₀
22	A ₁₁	A ₁₁	A ₁₁
23	A ₁₂	A ₁₂	A ₁₂
24	A ₁₃	A ₁₃	A ₁₃
25	A ₁₄	A ₁₄	A ₁₄
26	A ₁₅	A ₁₅	A ₁₅
27	A ₁₆	A ₁₆	A ₁₆
28	A ₁₇	A ₁₇	A ₁₇
29	A ₁₈	A ₁₈	A ₁₈
30	MEMN	MEMN	MEMN
31	MEMN	MEMN	MEMN
32	MEMN	MEMN	MEMN

CN96			
A	B	C	
1	+SCLK	-SCLK	
2	+1/2SCLK	-1/2SCLK	
3	+HD	-HD	1/4SCLK
4	RESETH	BUSBP	SYN
5	D ₀ N	D ₀ N	D ₀ N
6	D ₁ N	D ₁ N	D ₁ N
7	D ₂ N	D ₂ N	D ₂ N
8	D ₃ N	D ₃ N	D ₃ N
9	D ₄ N	D ₄ N	D ₄ N
10	D ₅ N	D ₅ N	D ₅ N
11	A ₀	A ₀	A ₀
12	A ₁	A ₁	A ₁
13	A ₂	A ₂	A ₂
14	A ₃	A ₃	A ₃
15	A ₄	A ₄	A ₄
16	A ₅	A ₅	A ₅
17	A ₆	A ₆	A ₆
18	A ₇	A ₇	A ₇
19	A ₈	A ₈	A ₈
20	A ₉	A ₉	A ₉
21	A ₁₀	A ₁₀	A ₁₀
22	A ₁₁	A ₁₁	A ₁₁
23	A ₁₂	A ₁₂	A ₁₂
24	A ₁₃	A ₁₃	A ₁₃
25	A ₁₄	A ₁₄	A ₁₄
26	A ₁₅	A ₁₅	A ₁₅
27	A ₁₆	A ₁₆	A ₁₆
28	A ₁₇	A ₁₇	A ₁₇
29	A ₁₈	A ₁₈	A ₁₈
30	MEMN	MEMN	MEMN
31	MEMN	MEMN	MEMN
32	MEMN	MEMN	MEMN

WPB0		1/2		CN41	
	A		B		C
1	+SCLK		-SCLK		+V0
2	+1/2SCLK		-1/2SCLK		-V0
3	+HD		-HD		1/4SCLK
4	REBETH		BUSBP		SYNC
5	D0:N		D1:N		D2:M
6	D0:N		D2:M		D0:M
7	D0:N		D7:M		D0:M
8	D0:N		D10:M		D1:M
9	D12:M		D12:M		D12:M
10	D12:M		A1		A0
11	A3		A4		A5
12	A6		A7		A8
13	A9		A10		A11
14	A12		A13		A14
15	A15		A16		A17
16	A18		MEMW0		MEMW0
17					
18					
19					
20					
21					
22			RET0		RET0
23	RET0		RET0		RET0
24	RET0		RET0		RET0
25	RET0		RET0		RET0
26	RET0		RET0		RET0
27	RET0		RET0		RET0
28	RET0		RET0		RET0
29	RET0		RET0		RET0
30	RET0		RET0		RET0
31	RET0		RET0		RET0
32	RET0		RET0		RET0

ALU-13

ALU-12

ALU-11

DPR-18

DPR-17

CN40		CN37		
B	C	A	B	C
GND	GND	1	GND	GND
GND	GND	2	GND	GND
GND	GND	3	GND	GND
+5V	+5V	4	+5V	+5V
+5V	+5V	5	+5V	+5V
+5V	+5V	6	+5V	+5V
		7		
		8		
		9		
		10		
		11		
		12		
		13		
		14		
		15		
		16	HSIGN	VSIGN
		17		
		18		
		19		
		20		
		21		
		22		
		23		
		24		
		25		
		26		
		27		
		28		
		29		
		30		
		31		
		32		

CN34		
A	B	C
1	GND	GND
2	GND	GND
3	GND	GND
4	+5V	+5V
5	+5V	+5V
6	+5V	+5V
7	CONT0	CONT1
8	RDAX0	RDAX1
9	RDAX3	RDAX4
10	RDAX6	RDAX7
11	RDAX9	RDAX10
12	RDAX13	RDAX14
13	RDAX17	RDAX18
14	RDAX21	RDAX22
15	RDAX25	RDAX26
16	RDAX29	RDAX30
17	RDAX33	RDAX34
18	RDAX37	RDAX38
19	RDAX41	RDAX42
20	RDAX45	RDAX46
21	RDAX49	RDAX50
22	RDAX53	RDAX54
23	RDAX57	RDAX58
24	RDAX61	RDAX62
25	RDAX65	RDAX66
26	RDAX69	RDAX70
27	RDAX73	RDAX74
28	RDAX77	RDAX78
29	RDAX81	RDAX82
30	RDAX85	RDAX86
31	RDAX89	RDAX90
32	RDAX93	RDAX94

CN31		
A	B	C
1	GND	GND
2	GND	GND
3	GND	GND
4	+5V	+5V
5	+5V	+5V
6	+5V	+5V
7	CONT0	CONT1
8	RDAX0	RDAX1
9	RDAX3	RDAX4
10	RDAX6	RDAX7
11	RDAX9	RDAX10
12	RDAX13	RDAX14
13	RDAX17	RDAX18
14	RDAX21	RDAX22
15	RDAX25	RDAX26
16	RDAX29	RDAX30
17	RDAX33	RDAX34
18	RDAX37	RDAX38
19	RDAX41	RDAX42
20	RDAX45	RDAX46
21	RDAX49	RDAX50
22	RDAX53	RDAX54
23	RDAX57	RDAX58
24	RDAX61	RDAX62
25	RDAX65	RDAX66
26	RDAX69	RDAX70
27	RDAX73	RDAX74
28	RDAX77	RDAX78
29	RDAX81	RDAX82
30	RDAX85	RDAX86
31	RDAX89	RDAX90
32	RDAX93	RDAX94

CN28		
A	B	C
1	GND	GND
2	GND	GND
3	GND	GND
4	+5V	+5V
5	+5V	+5V
6	+5V	+5V
7	CONT0	CONT1
8	RDAX0	RDAX1
9	RDAX3	RDAX4
10	RDAX6	RDAX7
11	RDAX9	RDAX10
12	RDAX13	RDAX14
13	RDAX17	RDAX18
14	RDAX21	RDAX22
15	RDAX25	RDAX26
16	RDAX29	RDAX30
17	RDAX33	RDAX34
18	RDAX37	RDAX38
19	RDAX41	RDAX42
20	RDAX45	RDAX46
21	RDAX49	RDAX50
22	RDAX53	RDAX54
23	RDAX57	RDAX58
24	RDAX61	RDAX62
25	RDAX65	RDAX66
26	RDAX69	RDAX70
27	RDAX73	RDAX74
28	RDAX77	RDAX78
29	RDAX81	RDAX82
30	RDAX85	RDAX86
31	RDAX89	RDAX90
32	RDAX93	RDAX94

CN41		CN38		
B	C	A	B	C
-SCLK	+VD	1	-SCLK	+VD
-1/2SCLK	-VD	2	+1/2SCLK	-VD
-HD	1/4SCLK	3	-HD	1/4SCLK
BUSSP	SYNC	4	RESETH	BUSSP
D _{1N}	D _{2N}	5	D _{1N}	D _{2N}
D _{3N}	D _{4N}	6	D _{1N}	D _{2N}
D _{5N}	D _{6N}	7	D _{1N}	D _{2N}
D _{7N}	D _{8N}	8	D _{1N}	D _{2N}
D _{9N}	D _{10N}	9	D _{1N}	D _{2N}
D _{11N}	D _{12N}	10	D _{1N}	D _{2N}
A ₁	A ₂	11	A ₁	A ₂
A ₃	A ₄	12	A ₁	A ₂
A ₅	A ₆	13	A ₁	A ₂
A ₇	A ₈	14	A ₁	A ₂
A ₉	A ₁₀	15	A ₁	A ₂
A ₁₁	A ₁₂	16	A ₁	A ₂
A ₁₃	A ₁₄	17	A ₁	A ₂
A ₁₅	A ₁₆	18	A ₁	A ₂
MEMN	MEMR	19	MEMN	MEMR
		20		
		21		
		22		
		23		
		24		
		25		
		26		
		27		
		28		
		29		
		30		
		31		
		32		

CN35		
A	B	C
1	-SCLK	+VD
2	+1/2SCLK	-VD
3	-HD	1/4SCLK
4	RESETH	BUSSP
5	D _{1N}	D _{2N}
6	D _{3N}	D _{4N}
7	D _{5N}	D _{6N}
8	D _{7N}	D _{8N}
9	D _{9N}	D _{10N}
10	D _{11N}	D _{12N}
11	A ₁	A ₂
12	A ₃	A ₄
13	A ₅	A ₆
14	A ₇	A ₈
15	A ₉	A ₁₀
16	A ₁₁	A ₁₂
17	A ₁₃	A ₁₄
18	A ₁₅	A ₁₆
19	MEMN	MEMR
20	3DRZ0	3DRZ1
21	3DRZ2	3DRZ3
22	3DRZ4	3DRZ5
23	3DRZ6	3DRZ7
24	3DRZ8	3DRZ9
25	3DRZ10	3DRZ11
26	3DRZ12	3DRZ13
27	3DRZ14	3DRZ15
28	3DRZ16	3DRZ17
29	3DRZ18	3DRZ19
30	3DRZ20	3DRZ21
31	3DRZ22	3DRZ23
32	3DRZ24	3DRZ25

CN32		
A	B	C
1	-SCLK	+VD
2	+1/2SCLK	-VD
3	-HD	1/4SCLK
4	RESETH	BUSSP
5	D _{1N}	D _{2N}
6	D _{3N}	D _{4N}
7	D _{5N}	D _{6N}
8	D _{7N}	D _{8N}
9	D _{9N}	D _{10N}
10	D _{11N}	D _{12N}
11	A ₁	A ₂
12	A ₃	A ₄
13	A ₅	A ₆
14	A ₇	A ₈
15	A ₉	A ₁₀
16	A ₁₁	A ₁₂
17	A ₁₃	A ₁₄
18	A ₁₅	A ₁₆
19	MEMN	MEMR
20	3DRZ0	3DRZ1
21	3DRZ2	3DRZ3
22	3DRZ4	3DRZ5
23	3DRZ6	3DRZ7
24	3DRZ8	3DRZ9
25	3DRZ10	3DRZ11
26	3DRZ12	3DRZ13
27	3DRZ14	3DRZ15
28	3DRZ16	3DRZ17
29	3DRZ18	3DRZ19
30	3DRZ20	3DRZ21
31	3DRZ22	3DRZ23
32	3DRZ24	3DRZ25

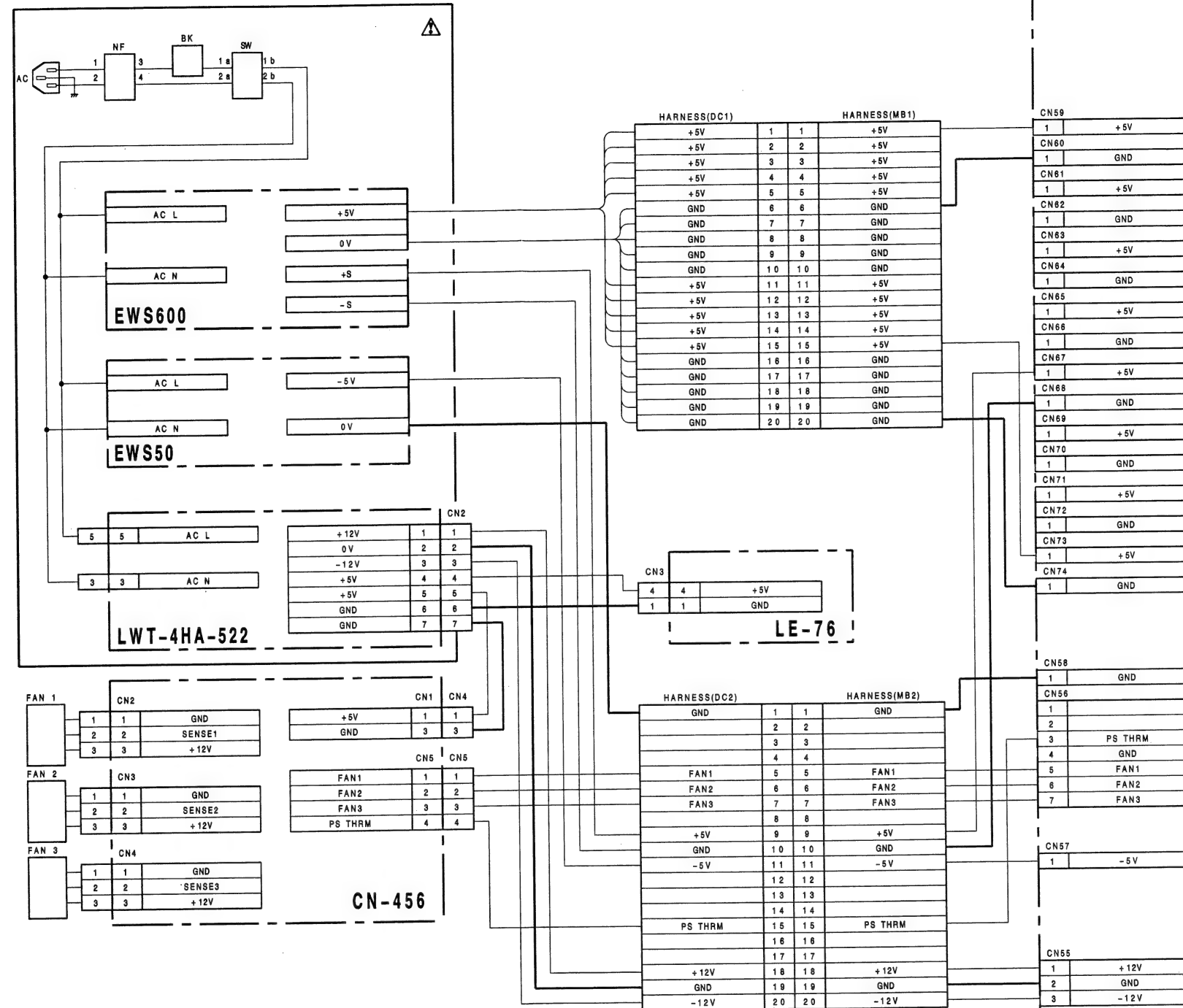
CN29		
A	B	C
1	-SCLK	+VD
2	+1/2SCLK	-VD
3	-HD	1/4SCLK
4	RESETH	BUSSP
5	D _{1N}	D _{2N}
6	D _{3N}	D _{4N}
7	D _{5N}	D _{6N}
8	D _{7N}	D _{8N}
9	D _{9N}	D _{10N}
10	D _{11N}	D _{12N}
11	A ₁	A ₂
12	A ₃	A ₄
13	A ₅	A ₆
14	A ₇	A ₈
15	A ₉	A ₁₀
16	A ₁₁	A ₁₂
17	A ₁₃	A ₁₄
18	A ₁₅	A ₁₆
19	MEMN	MEMR
20	3DRZ0	3DRZ1
21	3DRZ2	3DRZ3
22	3DRZ4	3DRZ5
23	3DRZ6	3DRZ7
24	3DRZ8	3DRZ9
25	3DRZ10	3DRZ11
26	3DRZ12	3DRZ13
27	3DRZ14	3DRZ15
28	3DRZ16	3DRZ17
29	3DRZ18	3DRZ19
30	3DRZ20	3DRZ21
31	3DRZ22	3DRZ23
32	3DRZ24	3DRZ25

CN42		CN39		
B	C	A	B	C
3DRX1	3DRX2	1	3DRX0	3DRX1
3DRX3	3DRX4	2	3DRX2	3DRX3
3DRX5	3DRX6	3	3DRX4	3DRX5
3DRX7	3DRX8	4	3DRX6	3DRX7
3DRX9	3DRX10	5	3DRX8	3DRX9
3DRX11	3DRX12	6	3DRX10	3DRX11
3DRX13	3DRX14	7	3DRX12	3DRX13
3DRX15	3DRX16	8	3DRX14	3DRX15
3DRX17	3DRX18	9	3DRX16	3DRX17
3DRX19	3DRX20	10	3DRX18	3DRX19
3DRX21	3DRX22	11	3DRX20	3DRX21
3DRX23	3DRX24	12	3DRX22	3DRX23
3DRX25	3DRX26	13	3DRX24	3DRX25
3DRX27	3DRX28	14	3DRX26	3DRX27
3DRX29	3DRX30	15	3DRX28	3DRX29
3DRX31	3DRX32	16	3DRX30	3DRX31
3DRX33	3DRX34	17	3DRX32	3DRX33
3DRX35	3DRX36	18	3DRX34	3DRX35
3DRX37	3DRX38	19	3DRX36	3DRX37
3DRX39	3DRX40	20	3DRX38	3DRX39
3DRX41	3DRX42	21	3DRX40	3DRX41
3DRX43	3DRX44	22	3DRX42	3DRX43
3DRX45	3DRX46	23	3DRX44	3DRX45
3DRX47	3DRX48	24	3DRX46	3DRX47
3DRX49	3DRX50	25	3DRX48	3DRX49
3DRX51	3DRX52	26	3DRX50	3DRX51
3DRX53	3DRX54	27	3DRX52	3DRX53
3DRX55	3DRX56	28	3DRX54	3DRX55
3DRX57	3DRX58	29	3DRX56	3DRX57
3DRX59	3DRX60	30	3DRX58	3DRX59
3DRX61	3DRX62	31	3DRX60	3DRX61
3DRX63	3DRX64	32	3DRX62	3DRX63

CN36		
A	B	C
1	3DRX0	3DRX1
2	3DRX2	3DRX3
3	3DRX4	3DRX5
4	3DRX6	3DRX7
5	3DRX8	3DRX9
6	3DRX10	3DRX11
7	3DRX12	3DRX13
8	3DRX14	3DRX15
9	3DRX16	3DRX17
10	3DRX18	3DRX19
11	3DRX20	3DRX21
12	3DRX22	3DRX23
13	3DRX24	3DRX25
14	3DRX26	3DRX27
15	3DRX28	3DRX29
16	3DRX30	3DRX31
17	3DRX32	3DRX33
18	3DRX34	3DRX35
19	3DRX36	3DRX37
20	3DRX38	3DRX39
21	3DRX40	3DRX41
22	3DRX42	3DRX43
23	3DRX44	3DRX45
24	3DRX46	3DRX47
25	3DRX48	3DRX49
26	3DRX50	3DRX51
27	3DRX52	3DRX53
28	3DRX54	3DRX55
29	3DRX56	3DRX57
30	3DRX58	3DRX59
31	3DRX60	3DRX61
32	3DRX62	3DRX63

CN33		
A	B	C
1	3DRX0	3DRX1
2	3DRX2	3DRX3
3	3DRX4	3DRX5
4	3DRX6	3DRX7
5	3DRX8	3DRX9
6	3DRX10	3DRX11
7	3DRX12	3DRX13
8	3DRX14	3DRX15
9	3DRX16	3DRX17
10	3DRX18	3DRX19
11	3DRX20	3DRX21
12	3DRX22	3DRX23
13	3DRX24	3DRX25
14	3DRX26	3DRX27
15	3DRX28	3DRX29
16	3DRX30	3DRX31
17	3DRX32	3DRX33
18	3DRX34	3DRX35
19	3DRX36	3DRX37
20	3DRX38	3DRX39
21	3DRX40	3DRX41

FRAME



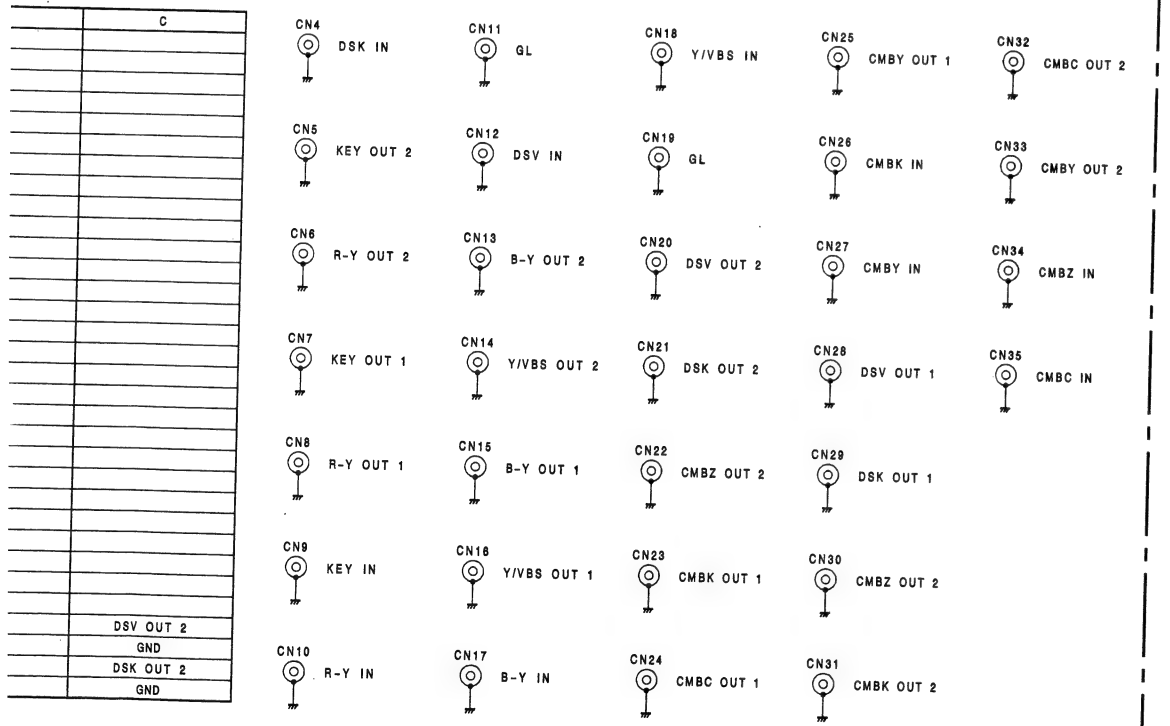
CN1(TO CN3/MB-305)				CN3(TO CN1/MB-305)			
	A	B	C		A	B	C
1	GEN LOCK	GND		1			
2	GND			2			
3				3			
4				4			
5				5			
6				6			
7				7			
8				8			
9				9			
10				10			
11	GND		GND	11			
12	Y/VBS IN	GND	R-Y IN	12			
13	GND		GND	13			
14	B-Y IN	GND	KEY IN	14			
15	GND		GND	15			
16				16			
17	GND		GND	17			
18	Y/VBS OUT 1	GND	R-Y OUT 1	18			
19	GND		GND	19			
20	B-Y OUT 1	GND	KEY OUT 1	20			
21	GND		GND	21			
22	Y/VBS OUT 2	GND	R-Y OUT 2	22			
23	GND		GND	23			
24	B-Y OUT 2	GND	KEY OUT 2	24			
25	GND		GND	25			
26	GND	GND	GND	26			
27	DSV IN	GND	DSK IN	27			
28	GND		GND	28			
29	DSV OUT 1	GND	DSV OUT 2	29			
30	GND		GND	30			
31	DSK OUT 1	GND	DSK OUT 2	31			
32	GND	GND	GND	32			

CN2(TO CN6/MB-305)				CN4			
	A	B	C				
1				1	DSK		
2				2			
3				3			
4				4			
5				5			
6				6	KEY		
7				7			
8				8			
9				9			
10				10	R-Y		
11				11			
12				12			
13				13			
14				14			
15				15			
16				16	EY		
17				17			
18				18			
19				19			
20				20	R-Y		
21				21			
22				22			
23				23			
24				24			
25				25			
26				26	KEY		
27				27			
28				28			
29	DSV OUT 1		DSV OUT 2	29			
30	GND		GND	30			
31	DSK OUT 1	GND	DSK OUT 2	31			
32	GND	GND	GND	32	R-Y		

MB-305

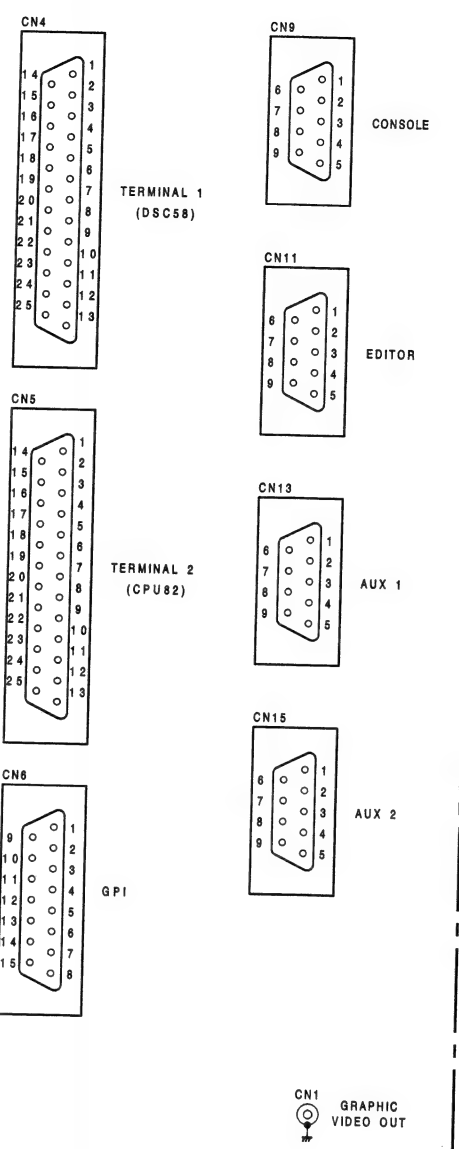
CN3(TO CN9/MB-305)			
	A	B	C
1	GND	GND	GND
2	GND	Y IN	
3	GND	GND	GND
4	GND	GND	GND
5		C IN	GND
6	GND	GND	GND
7	GND	GND	GND
8	GND	K IN	
9	GND	GND	GND
10	GND	GND	GND
11		Z IN	GND
12	GND	GND	GND
13	GND	GND	GND
14	GND	Y OUT 1	
15	GND	GND	GND
16		Y OUT 2	GND
17	GND	GND	GND
18	GND	C OUT 1	
19	GND	GND	GND
20	GND	C OUT 2	GND
21	GND	GND	GND
22	GND	K OUT 1	
23	GND	GND	GND
24		K OUT 2	GND
25		GND	GND
26	GND	Z OUT 1	
27	GND	GND	GND
28		Z OUT 2	GND
29	GND	GND	GND
30			
31			
32	GND	GND	GND

CN-462



CN2(TO CN51/MB-305)			
	A	B	C
1	GND	GND	GND
2	TX1+	(TXC1+)	
3	TX1-	(TXC1-)	RX1+
4		(RXC1+)	RX1-
5	GND	GND	(RXC1-)
6	TX2+	(TXC2+)	RX2+
7	TX2-	(TXC2-)	RX2-
8		(RXC2+)	(RXC2-)
9	GND	GND	GND
10	TX3+	(TXC3+)	RX3+
11	TX3-	(TXC3-)	RX3-
12		(RXC3+)	(RXC3-)
13	GND	GND	GND
14	TX4+	(TXC4+)	RX4+
15	TX4-	(TXC4-)	RX4-
16		(RXC4+)	(RXC4-)
17	GND	GND	GND
18	GP101	GP101G	GP111
19	GP102	GP102G	GP112
20	GP103	GP103G	GP113
21	GP104	GP104G	GP114
22			GP11G
23			
24			
25			
26			
27			
28			
29			
30	RXD	TXD	
31			
32	GND	GND	GND

CN3(TO CN54/MB-305)			
	A	B	C
1	RXD	TXD	
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
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16			
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20			
21			
22			
23			
24			
25			
26	GND		
27	SYNC		
28	GND	GND	GND
29	R	G	B
30	GND	GND	GND
31	GND	COMP OUT	GND
32	GND	GND	GND



CN-463

FRAME
DME-5000

SECTION 9
BOARD LAYOUTS

ALU-11;REALTIME NUMERIC DATA PROCESSOR

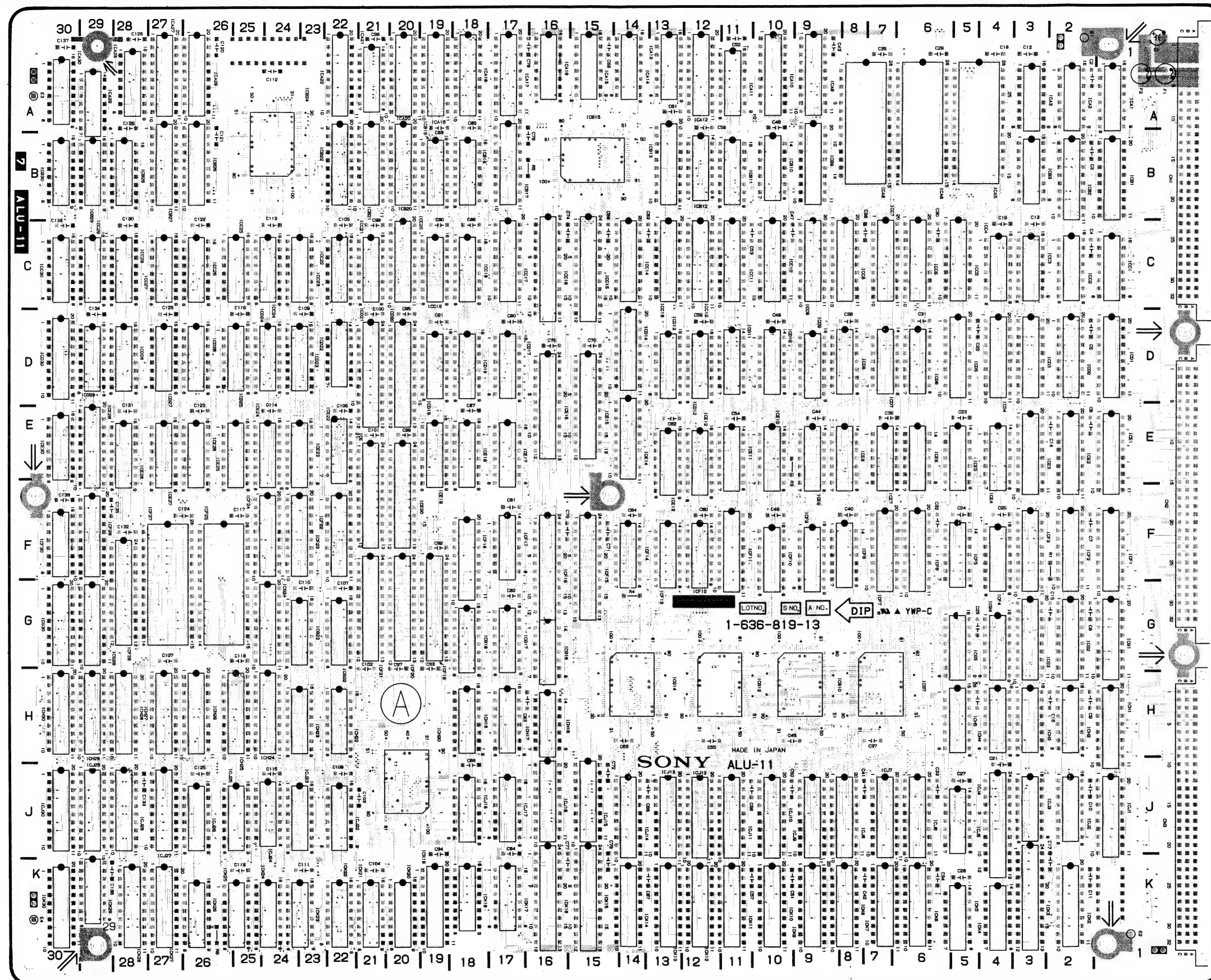
ALU-11

CN1 B-1
CN2 F-1
CN3 J-1

E1 A-2
E2 K-1
E3 A-30
E4 K-30

F1 A-1
F2 A-1

NOTE:
IC NO.on this board
show its address.



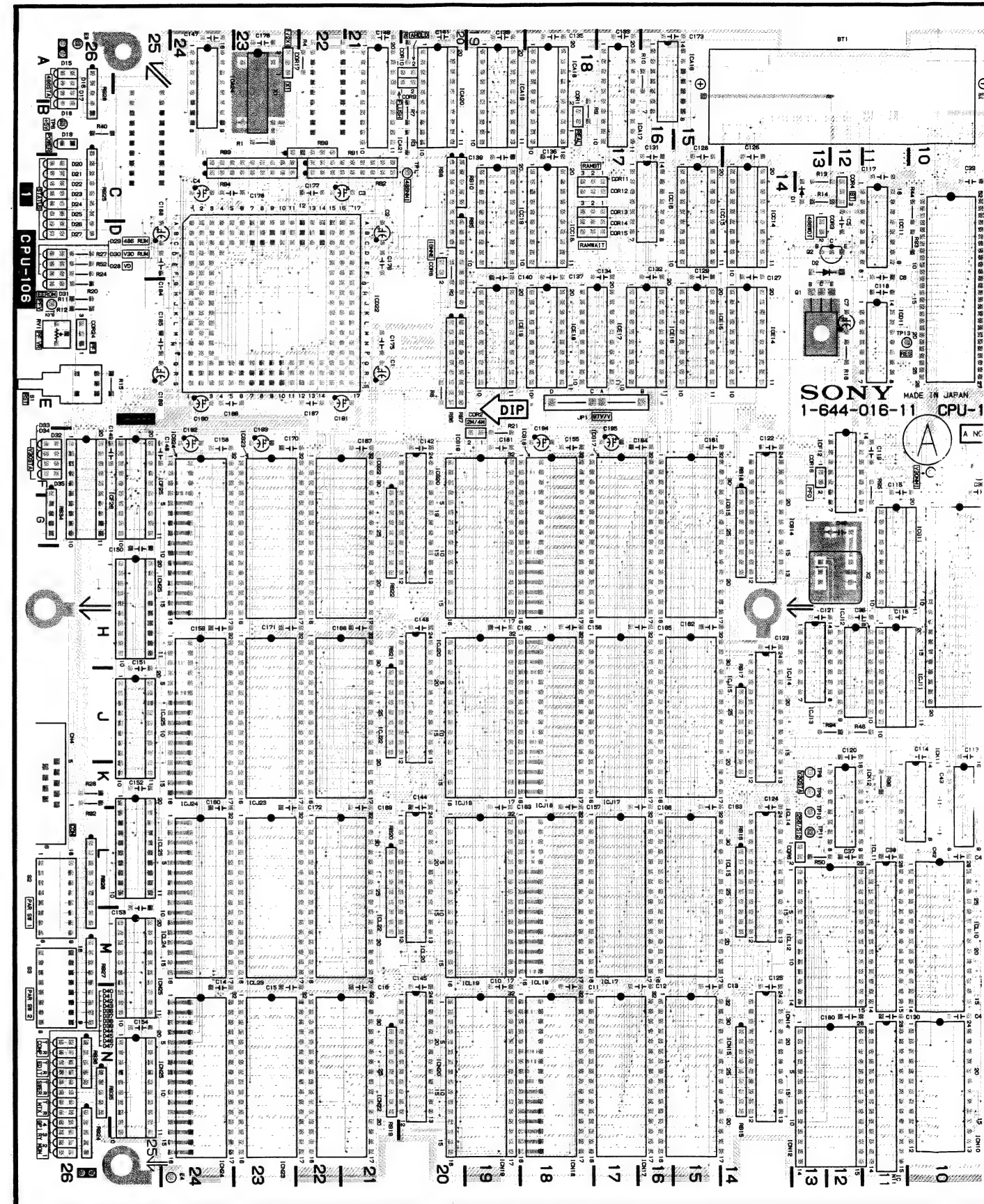
ALU-11 -A SIDE-
1-636-819-13
DME-5000

CPU-106;SYSTEM CONTROL AND COMMUNICATION

CPU-106

BT1	A-12	D24	C-26	RB20	L-21
		D25	C-26	RB21	H-21
CN1	E-1	D26	D-26	RB22	H-21
CN2	H-1	D27	D-26	RB23	N-2
CN3	N-1	D28	D-25	RB24	N-26
CN4	J-26	D29	D-25	RB25	C-26
		D30	D-25	RB26	L-26
COR1	B-18	D31	E-26	RB27	M-26
COR2	E-19	D32	G-26	RB28	A-26
COR3	C-12	D33	G-26	RB29	B-7
COR4	C-12	D34	G-26	RB30	E-8
COR5	J-7	D35	G-26	RB31	F-7
COR6	L-14	D36	N-26	RB32	H-8
COR7	K-9	D37	N-26	RB33	H-7
COR8	D-20	D38	N-26	RB34	G-26
COR9	A-20	D39	N-26	RB35	N-25
COR10	A-20	D40	N-26	RB36	N-26
COR11	C-17	D41	N-26		
COR12	C-17	D42	N-26	RV1	E-26
COR13	C-17	D43	N-26		
COR14	D-17	D44	N-26	RY1	N-1
COR15	D-17	D45	N-26	RY2	N-1
COR16	F-12	D46	N-26	RY3	N-2
COR17	A-22	D47	N-26	RY4	N-2
COR18	N-7				
COR19	B-7	E1	A-3	S1	E-26
COR20	B-8	E2	N-4	S2	L-26
COR21	A-7	E3	A-26	S3	M-26
COR22	M-4	E4	N-24	S4	A-8
COR23	M-4			S5	K-2
COR24	E-26				
		F1	A-1	TP1	C-20
		F2	B-1	TP2	A-6
D1	C-13			TP3	A-6
D2	D-13	Q1	E-13	TP4	A-6
D3	N-2	Q2	D-13	TP5	B-6
D4	N-2			TP6	B-26
D5	N-2	RB1	C-21	TP7	F-10
D6	N-2	RB2	C-21	TP8	K-13
D7	N-1	RB3	C-24	TP9	K-13
D8	N-1	RB4	C-24	TP10	L-13
D9	N-1	RB5	D-19	TP11	L-13
D10	N-1	RB6	E-20	TP12	E-26
D11	N-2	RB7	E-20	TP13	E-11
D12	N-2	RB8	C-20		
D13	N-3	RB9	B-22		
D14	N-3	RB10	C-19	X1	A-23
D15	A-26	RB11	G-2	X2	H-11
D16	A-26	RB12	F-2	X3	K-8
D17	A-26	RB13	E-2		
D18	B-26	RB14	E-2		
D19	B-26	RB15	N-14		
D20	C-26	RB16	L-14		
D21	C-26	RB17	J-14		
D22	C-26	RB18	F-14		
D23	C-26	RB19	N-21		

NOTE:
IC NO. on this board
show its address.



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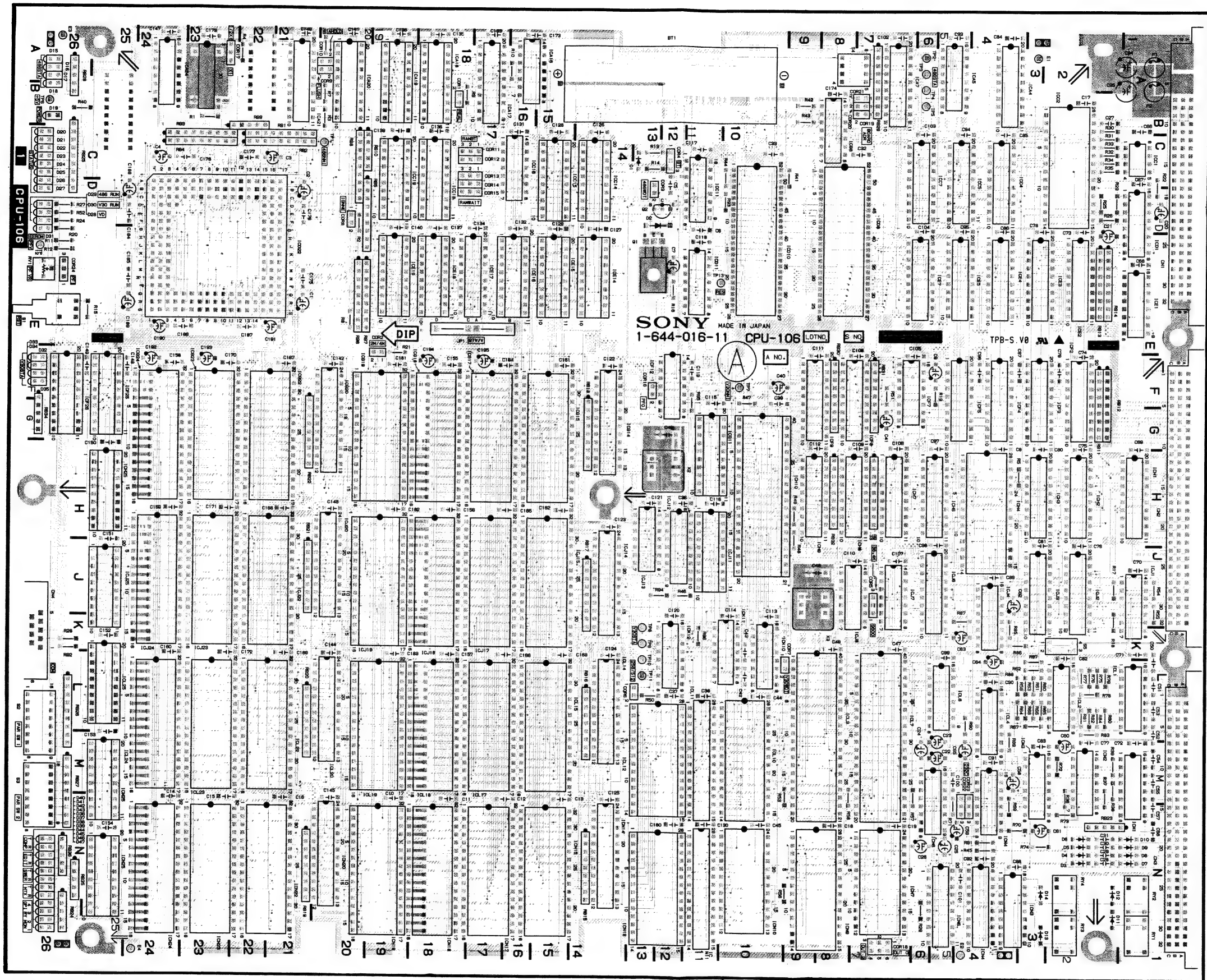
1
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26
26
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20
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6
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26
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13
26
11

23
11
8

this board
address.



CPU-106 -A SIDE-
1-644-016-11
DME-5000
BKDM-5000K1

DLP-9;HORIZONTAL AND VERTICAL LOW PASS FILTER

DLP-9

CN1 B-1
CN2 E-1
CN3 J-1
CN4 A-14
CN5 A-21
CN6 A-23
CN7 K-14
CN8 K-21

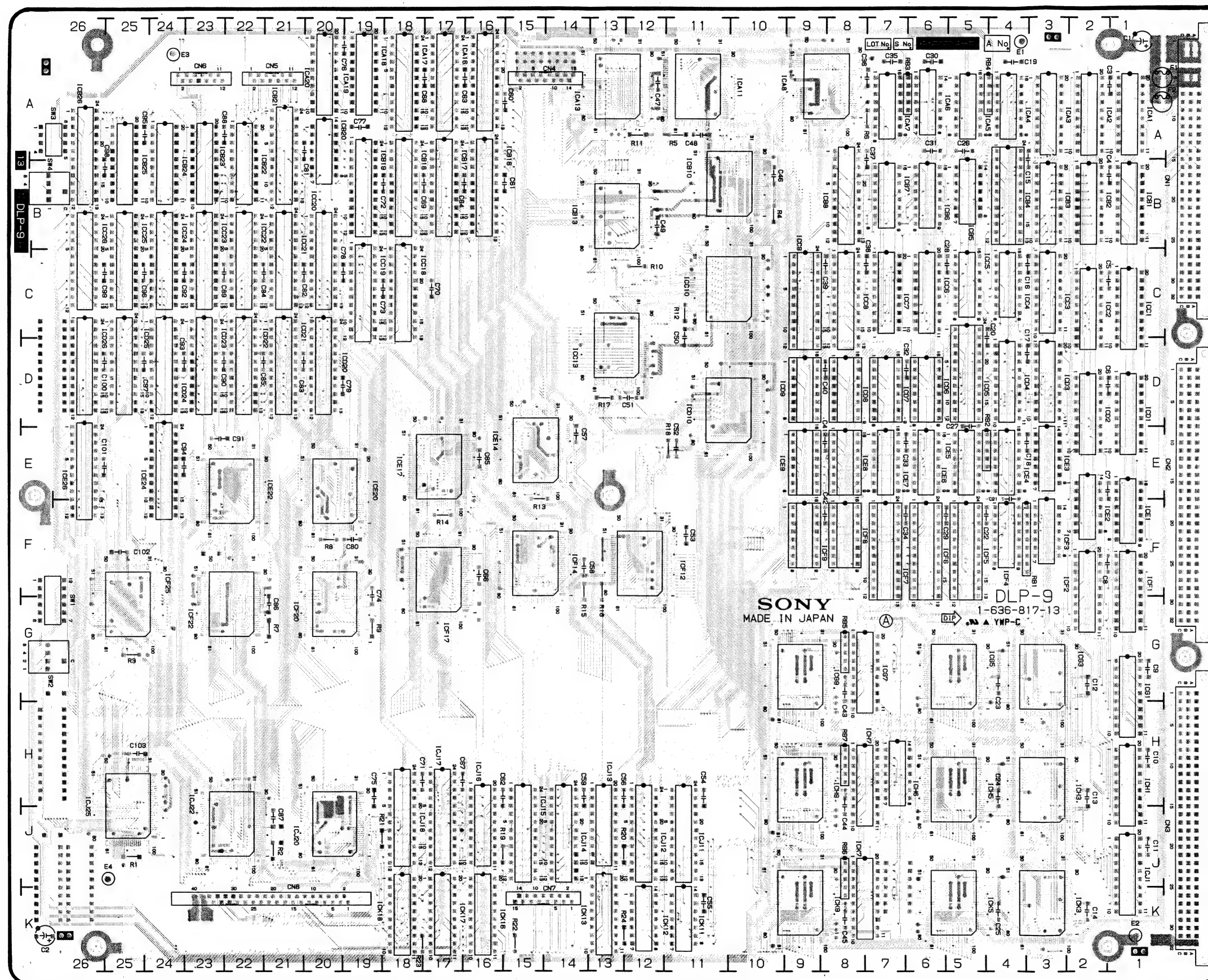
E1 A-4
E2 K-1
E3 A-24
E4 J-25

F1 A-1
F2 A-2

RB1 H-4
RB2 E-5
RB3 A-6
RB4 A-5
RB5 G-8
RB6 J-8
RB7 H-8

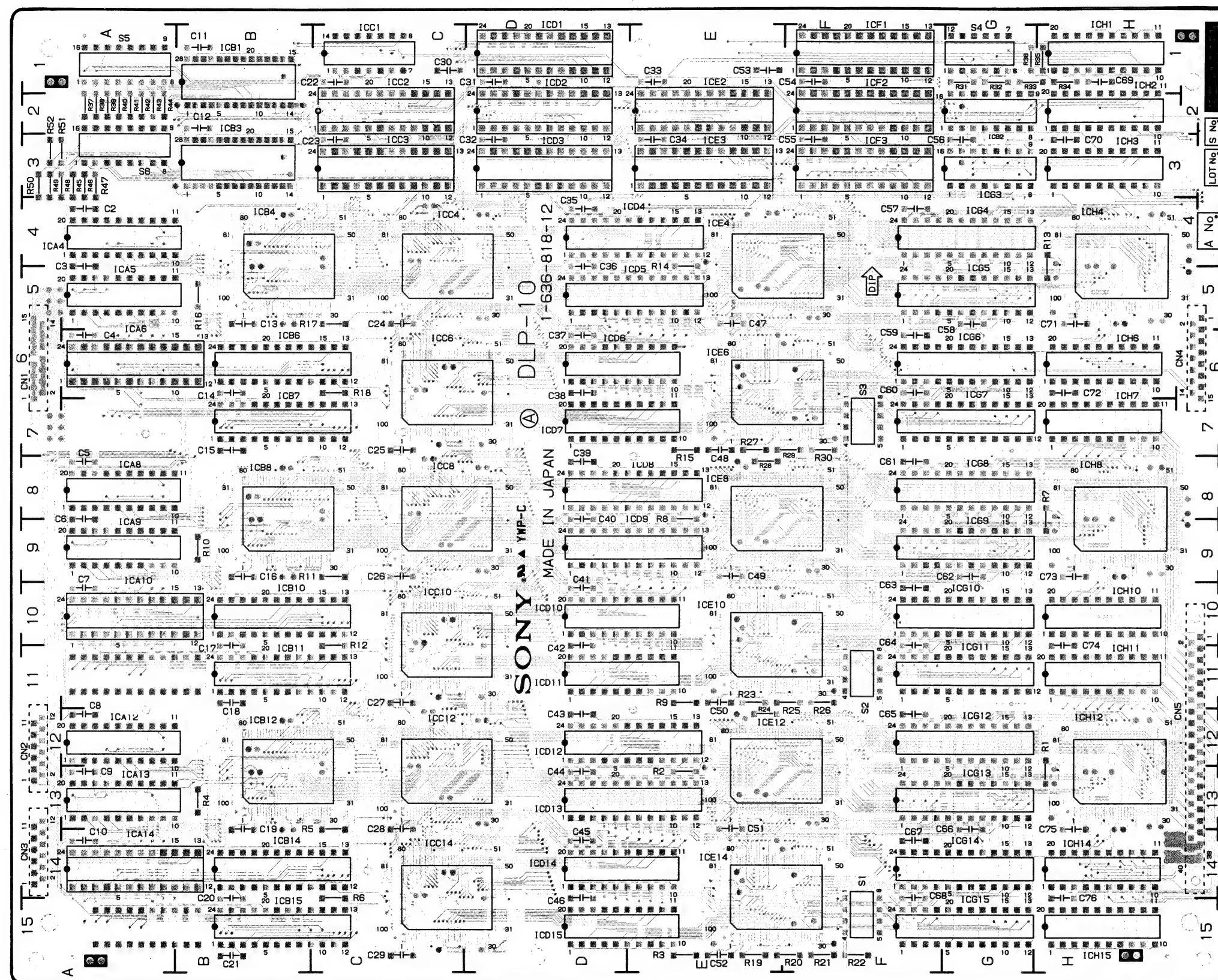
S1 G-26
S2 G-26
S3 A-26
S4 B-26

NOTE:
IC NO.on this board
show its address.



DLP-9 -A SIDE-
1-636-817-13
DME-5000

DLP-10;IIR VERTICAL LOW PASS FILTER



DLP-10

- *CN1 A-6
- *CN2 A-12
- *CN3 A-14
- *CN4 H-6
- *CN5 H-12

- S1 F-14
- S2 F-11
- S3 F-6
- S4 G-1
- S5 A-1
- S6 A-2

NOTE:
IC NO. on this board
show its address.

*B SIDE

DLP-10 -A SIDE-

1-636-818-12
DME-5000

DPR-16; OUTPUT RECURSIVE EFFECT GENERATOR AND BORDER GENERATOR

DPR-16

CN1 B-1
CN2 G-1
CN3 L-1

COR1 G-35
COR3 G-16
COR4 C-35

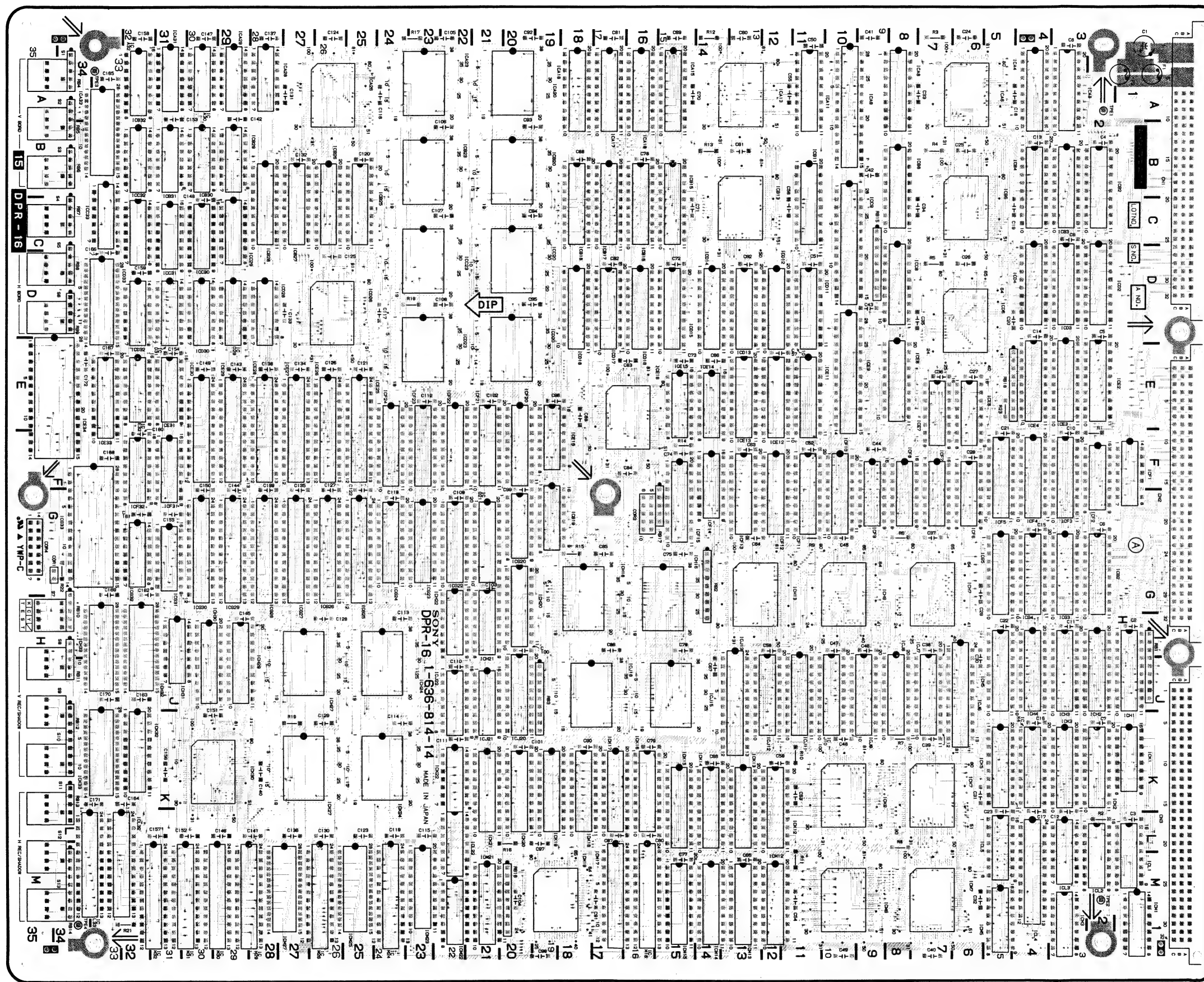
E1 A-2
E2 M-2
E3 A-33
E4 M-34

F1 A-1
F2 A-1

RB1 H-1
RB2 G-14
RB3 J-19
RB4 A-34
RB5 B-34
RB6 B-34
RB7 C-34
RB8 D-34
RB9 D-34
RB10 H-34
RB11 J-34
RB12 K-34
RB13 K-34
RB14 M-34
RB15 C-9
RB16 M-20
RB17 G-16
RB18 E-5

S1 A-34
S2 A-34
S3 B-34
S4 C-34
S5 C-34
S6 D-34
S7 H-35
S8 H-34
S9 J-34
S10 K-34
S11 K-34
S12 L-34
S13 M-34

NOTE:
IC NO. on this board
show its address.



DPR-16 -A SIDE-
1-636-814-14
DME-5000

DPR-17;MEMORY ADDRESS SELECTOR AND WRITE ADDRESS GENERATOR

DPR-17

CN1 B-1
CN2 E-1
CN3 H-1

COR1 F-9
COR2 E-11
COR3 E-11

DL1 F-11

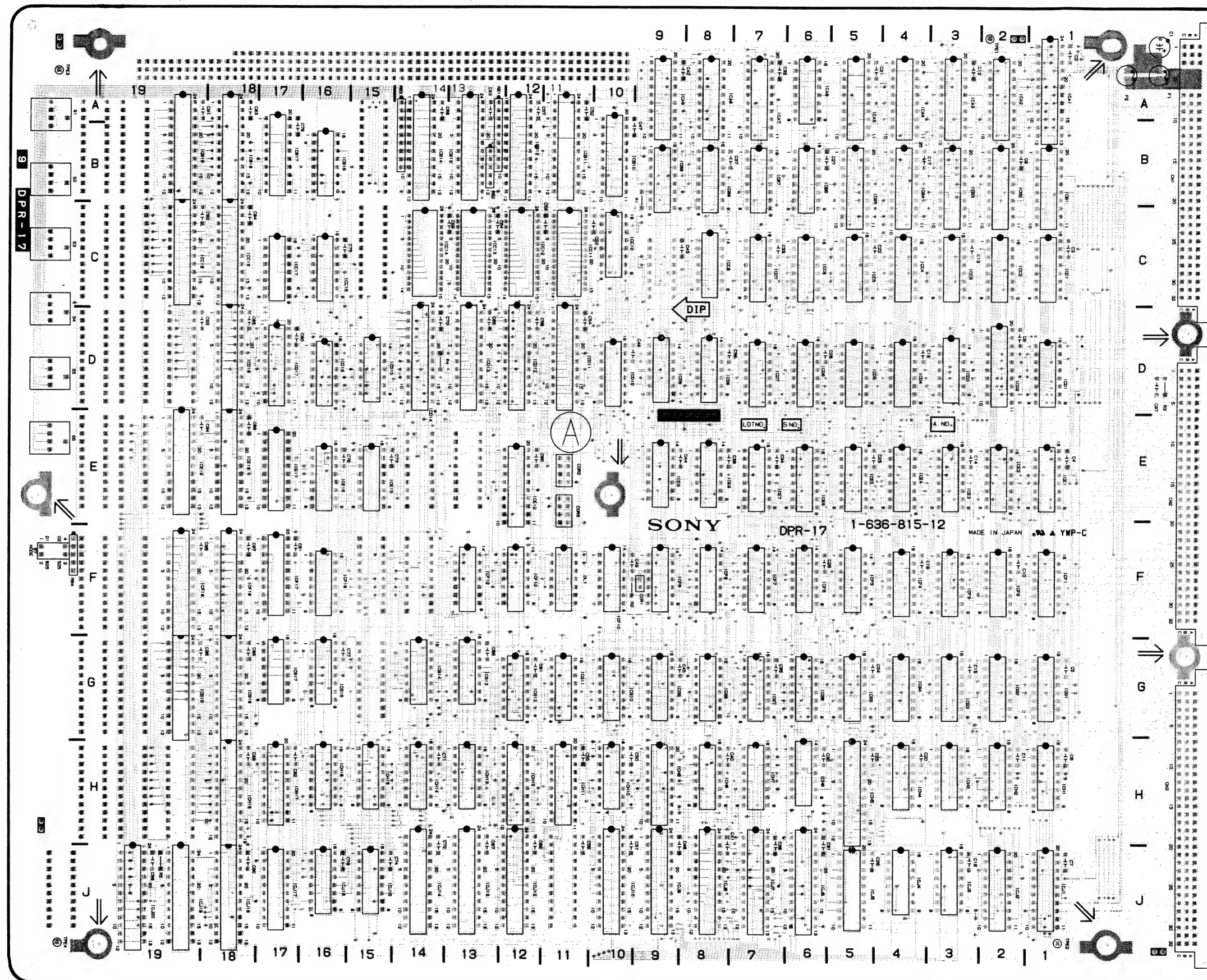
E1 A-2
E2 J-1
E3 A-19
E4 J-19

F1 A-1
F2 A-1

RB1 A-13
RB2 B-13
RB3 A-14
RB4 F-19

S7 F-19

NOTE:
IC NO.on this board
show its address.



DPR-17 -A SIDE-
1-636-815-12
DME-5000

DPR-18;READ ADDRESS GENERATOR AND SPLIT MIRROR GENERATOR

DPR-18

CN1 B-0
CN2 E-0
CN3 H-0

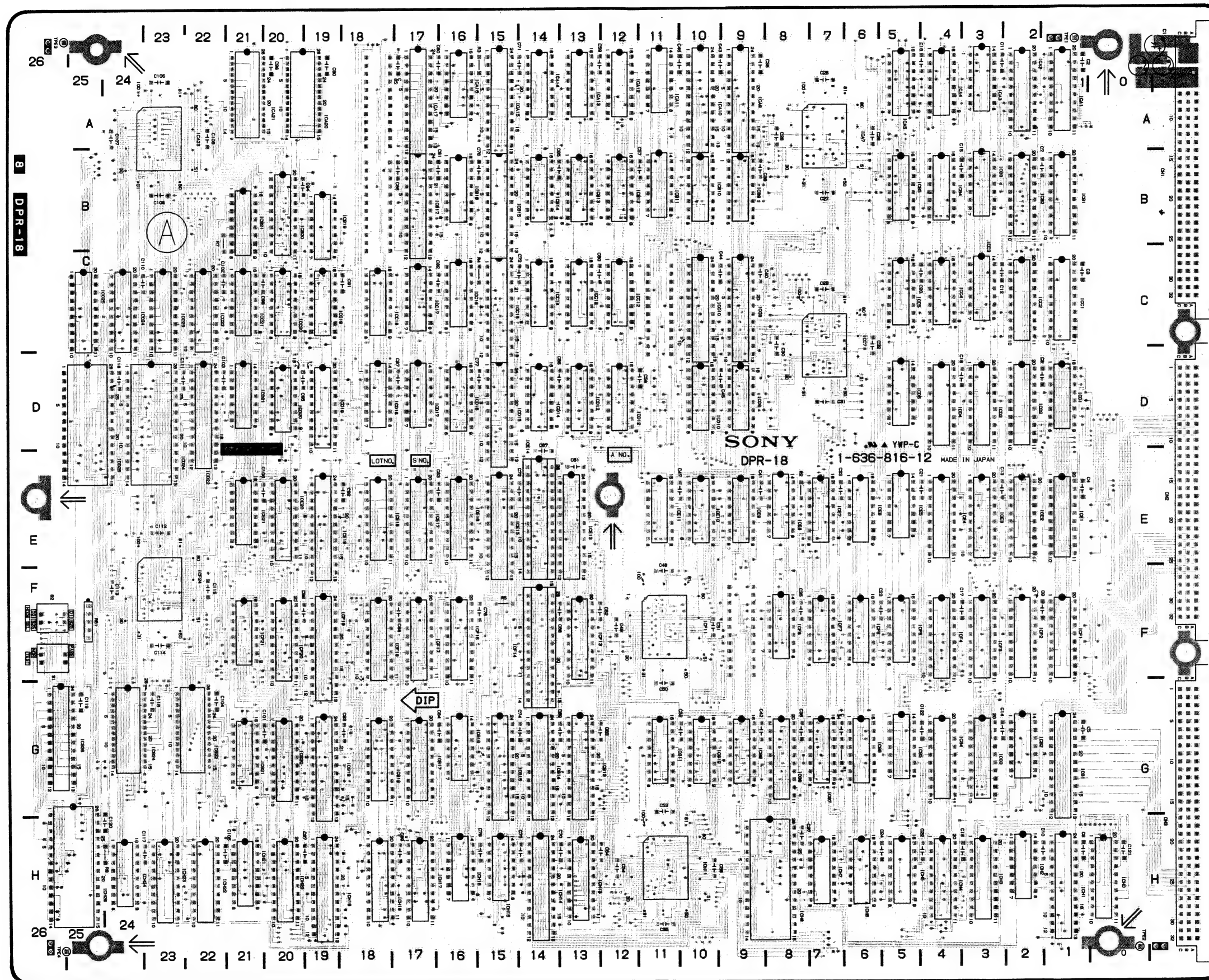
E1 A-1
E2 H-1
E3 A-26
E4 H-26

F1 A-0
F2 A-0

RB1 A-17

S1 F-26
S2 F-26

NOTE:
IC NO.on this board
show its address.



DPR-18 -A SIDE-
1-636-816-12
DME-50

DPR-42;INPUT PIXEL EFFECT GENERATOR AND MOTION DETECT

DPR-42

CN1 B-1
CN2 E-1
CN3 J-1
CN4 E-7

COR1 D-10

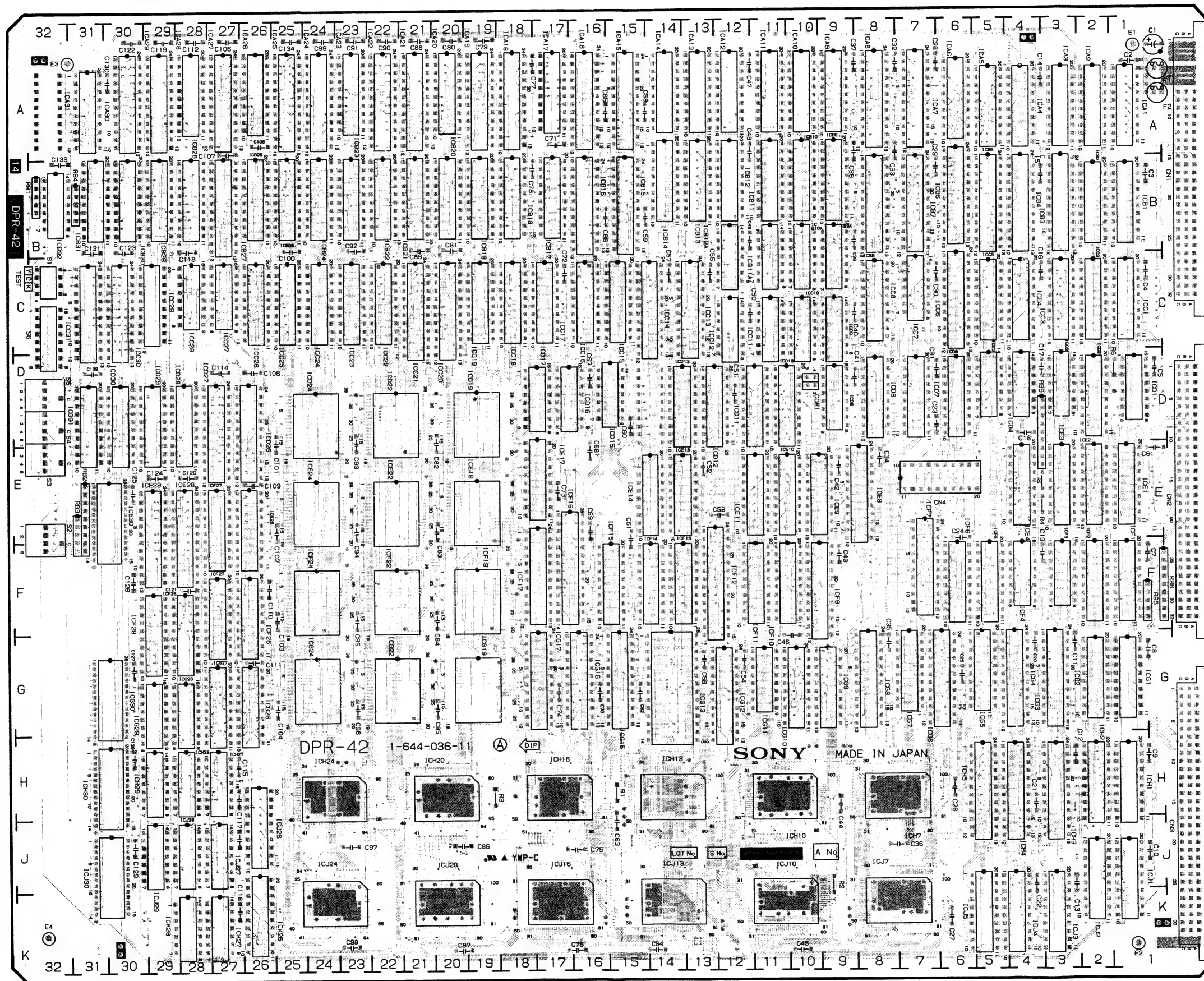
E1 A-1
E2 K-1
E3 A-32
E4 A-32

F1 A-1
F2 A-1

RB1 B-32
RB2 E-31
RB3 E-31
RB4 B-31
RB5 F-1
RB6 F-1
RB9 D-4

S1 C-32
S2 E-32
S3 E-32
S4 D-32
S5 D-32
S6 C-32

NOTE:
IC NO.on this board
show its address.



DPR-42 -A SIDE-
1-644-036-11
DME-50 00
BKDM-5000K1

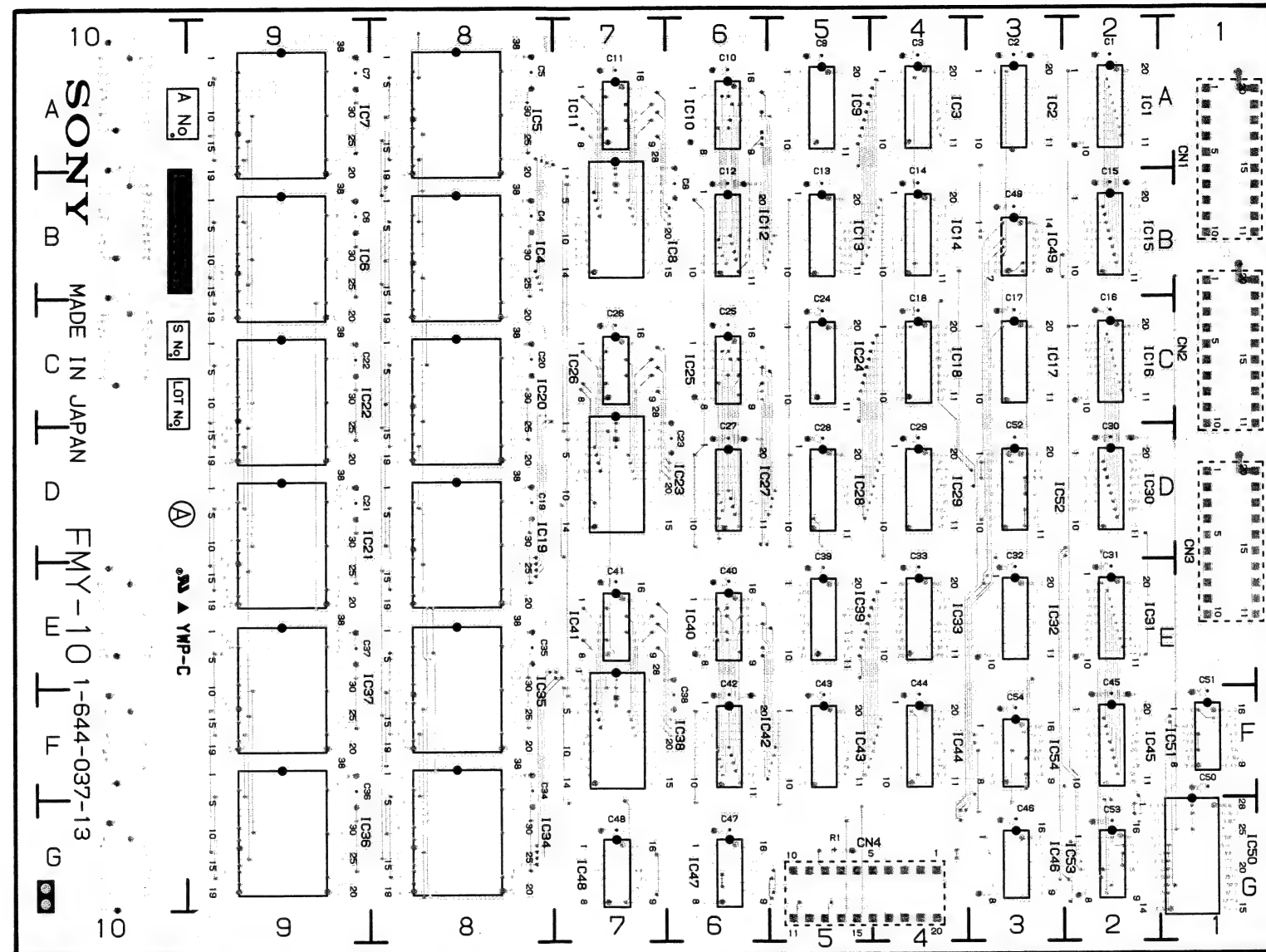
FMY-10;INPUT FREEZE

FMY-10

*CN1	A-1	IC50	G-1
*CN2	C-1	IC51	F-1
*CN3	D-1	IC52	D-3
*CN4	G-4	IC53	G-2
		IC54	F-3

IC1	A-2
IC2	A-3
IC3	A-4
IC4	B-8
IC5	A-8
IC6	B-9
IC7	A-9
IC8	B-6
IC9	A-5
IC10	A-6
IC11	A-7
IC12	B-6
IC13	B-5
IC14	B-4
IC15	B-2
IC16	C-2
IC17	C-3
IC18	C-4
IC19	D-8
IC20	C-8
IC21	C-9
IC22	C-9
IC23	D-6
IC24	C-5
IC25	C-6
IC26	C-7
IC27	D-6
IC28	D-5
IC29	D-4
IC30	D-2
IC31	E-2
IC32	E-3
IC33	E-4
IC34	G-8
IC35	F-8
IC36	G-9
IC37	F-9
IC38	F-6
IC39	E-5
IC40	E-6
IC41	E-7
IC42	F-6
IC43	F-5
IC44	F-4
IC45	F-2
IC46	G-3
IC47	G-6
IC48	G-7
IC49	B-3

NOTE:
*:B SIDE



FMY-10 -A SIDE-
1-644-037-13
DME-5000
BKDM-5000K1

MEM-41;3 FIELD VIDEO MEMORY AND INTERPOLATOR

MEM-41

CN1 B-1
CN2 E-1
CN3 H-1

COR1 J-5

DL1 G-13

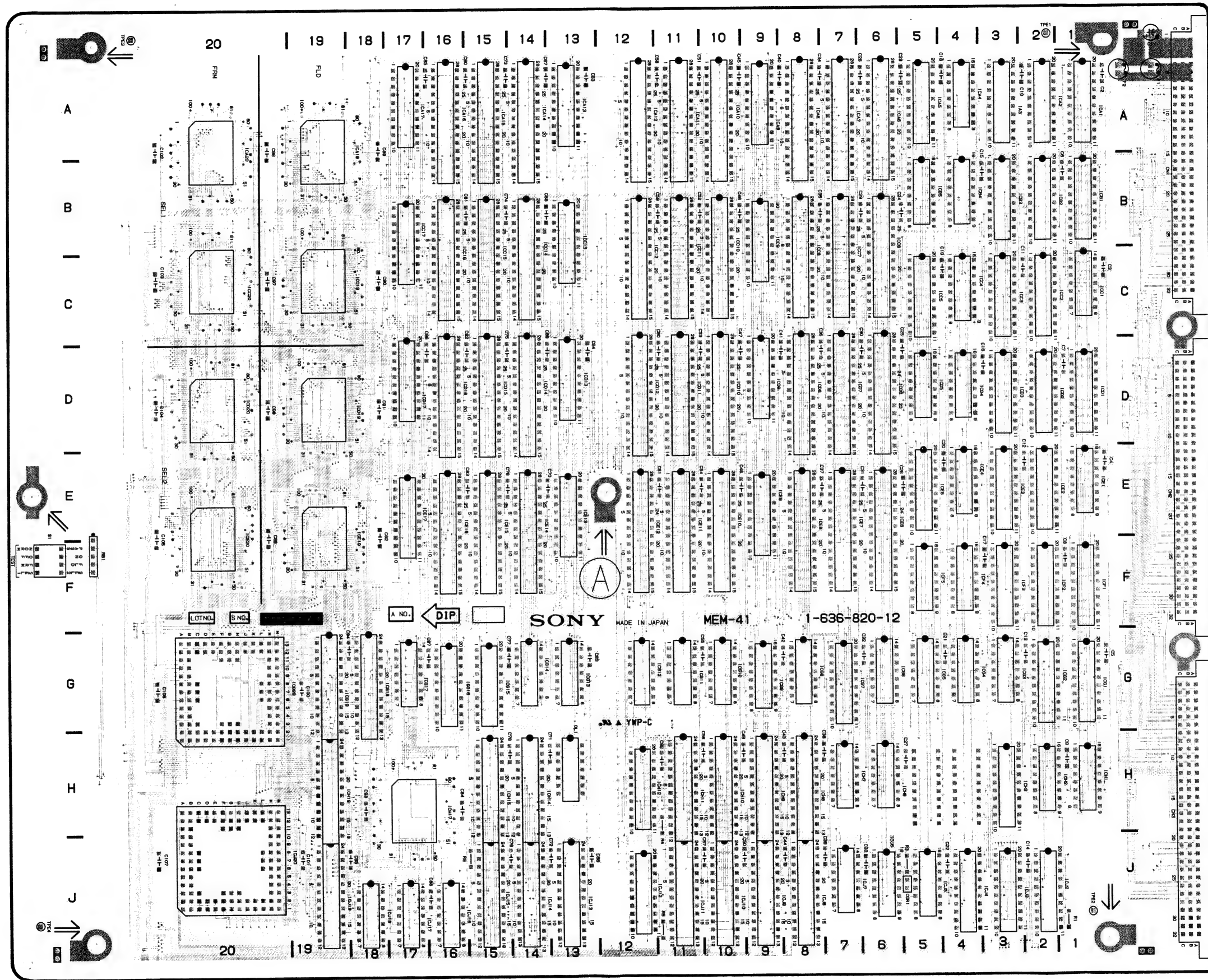
E1 A-2
E2 J-1
E3 A-20
E4 J-20

F1 A-1
F2 A-1

RB1 F-20

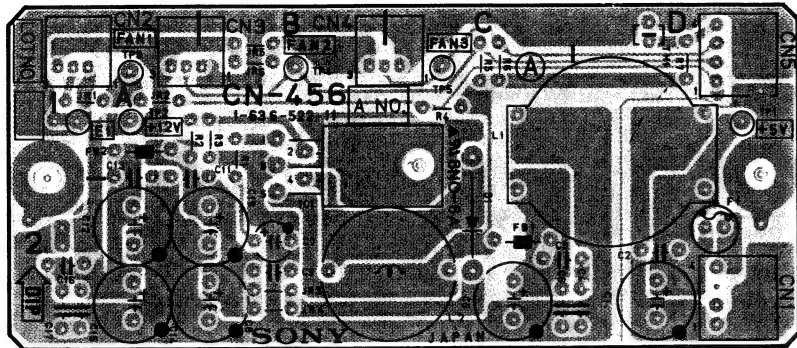
S1 E-20

NOTE:
IC NO. on this board
show its address.

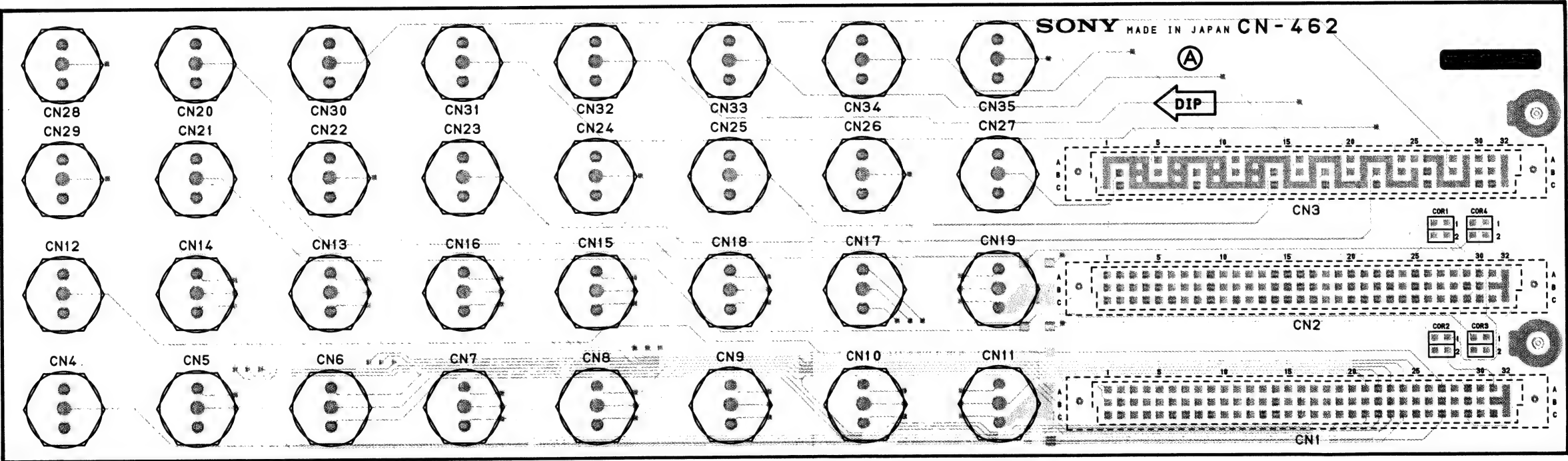


MEM-41 -A SIDE-
1-636-820-12
DME-5000

CN-456;POWER SUPPLY CONNECTOR BOARD
CN-462;BNC CONNECTOR BOARD

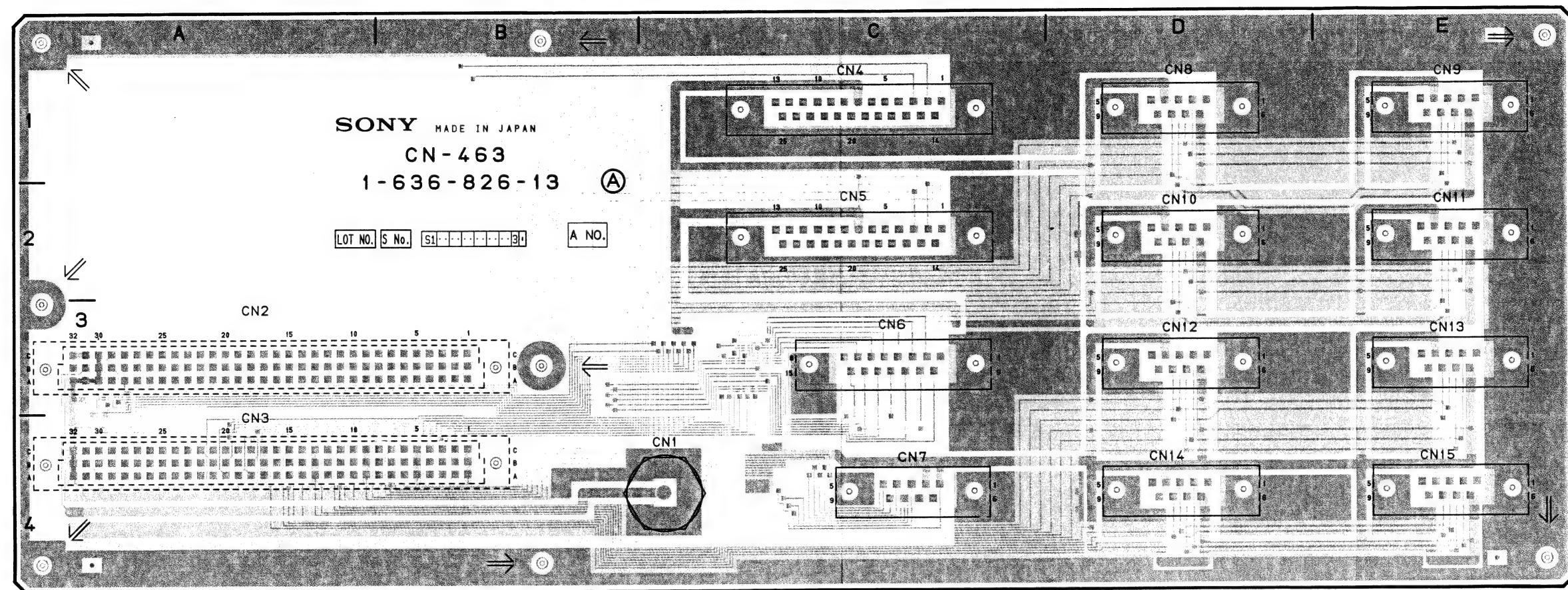


CN-456 -A SIDE-
1-636-522-11
DME-5000



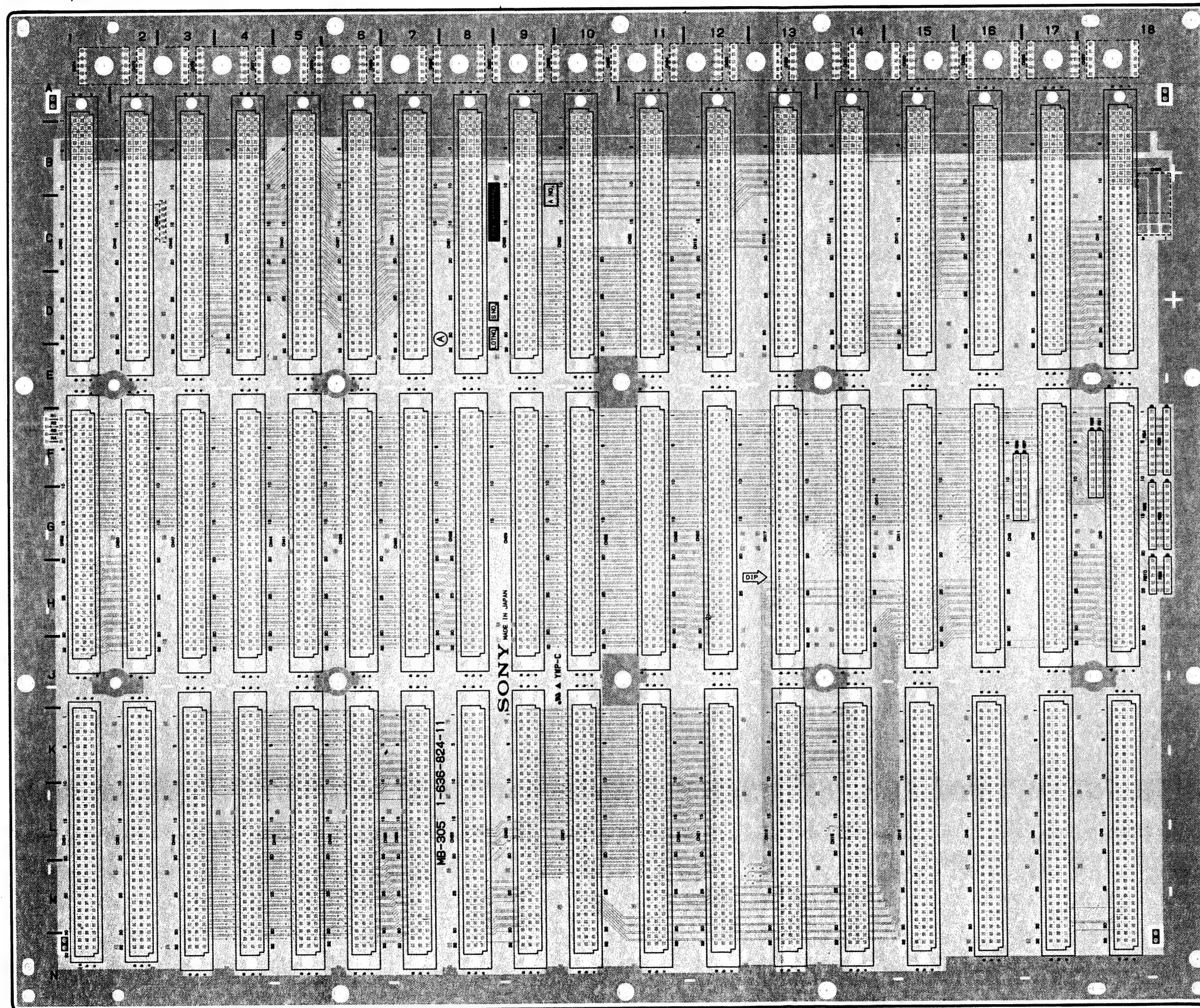
CN-462 -A SIDE-
1-636-825-12
DME-5000

CN-463;D SUB CONNECTOR BOARD



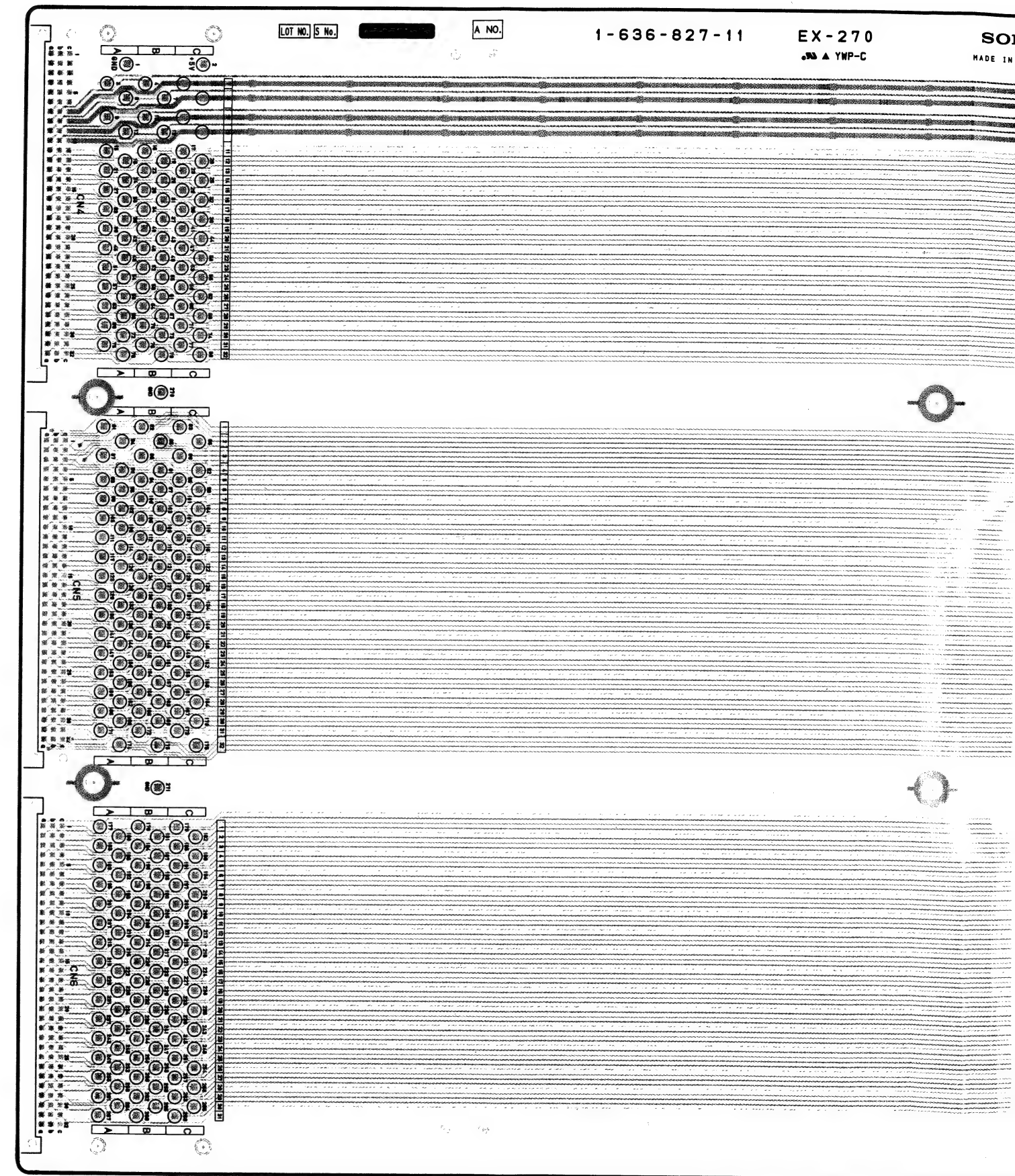
CN-463 -A SIDE-
1-636-826-13
DME-5000

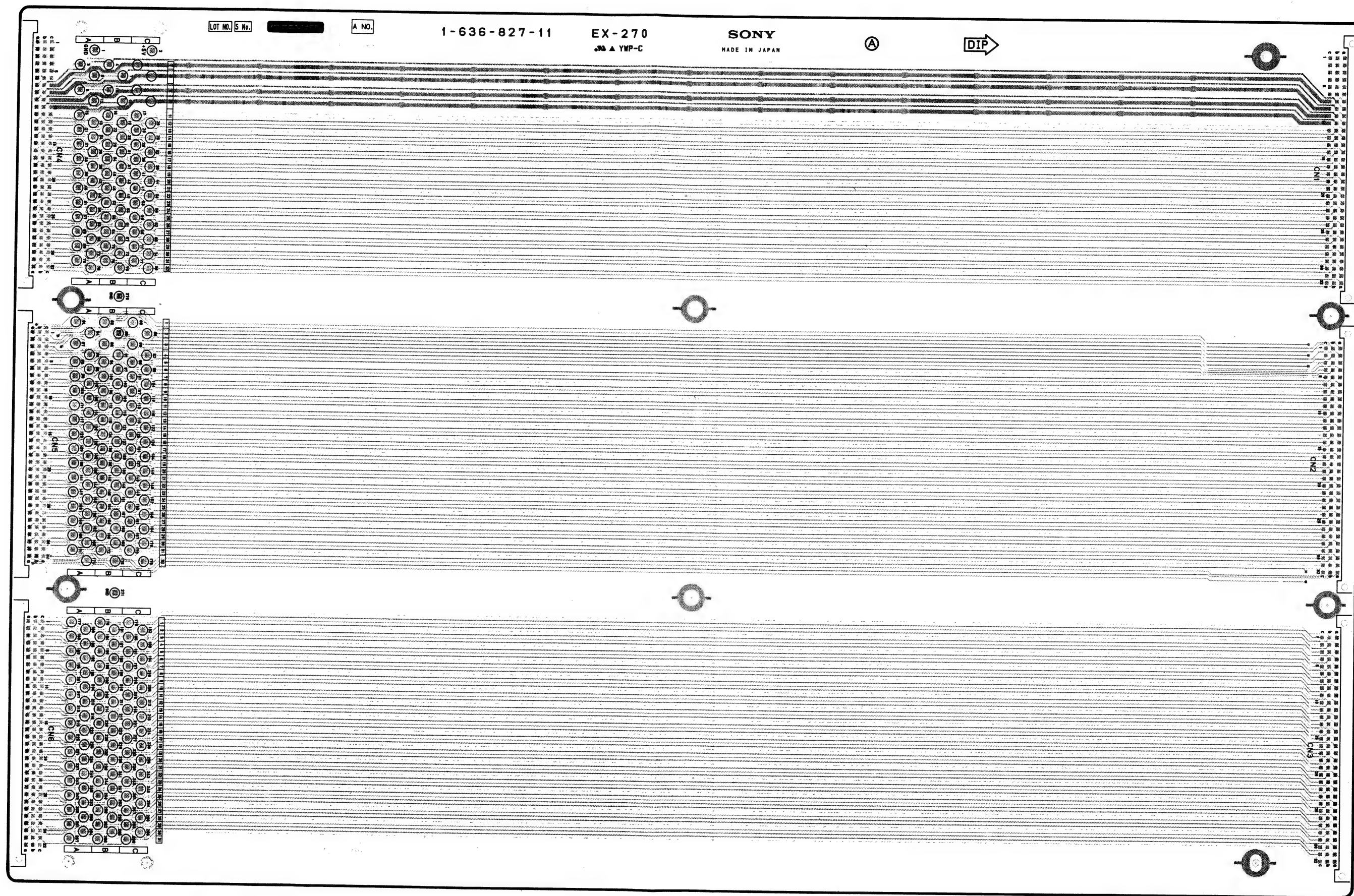
MB-305;MOTHER BOARD



MB-305 -A SIDE-
1-636-824-11
DME-5000

EX-270;EXTENSION BOARD





EX-270 -A SIDE-
1-636-827-11
DME-5000

SECTION 10
SPARE PARTS

10-1. PARTS INFORMATION

- 注意1. 分解図、電気部品リスト中、SP欄でSが示されている部品は常時在庫します。
SP欄がOで示されている部品は交換頻度が低い部品ですので在庫しないことがあり、納期が長くなる場合があります。
- 注意2. リスト、分解図中で△印のついている部品は安全性を維持するために重要な部品です。従って交換する時は必ず指定の部品を使って下さい。
- 注意3. この部品表に示されている部品は工場から出荷された製品に実装されている部品とは異なることがあります。
・「部品の共通化」又は「工場での設計変更」によるものです。
・工場での設計変更については、別途発行のテクニカルニュースを参照して下さい。
- 注意4. 電気部品は基板ごとに構成されており、部品順序はRef.No.のアルファベット順になっています。
- 注意5. 抵抗で単位のないものは全てΩです。

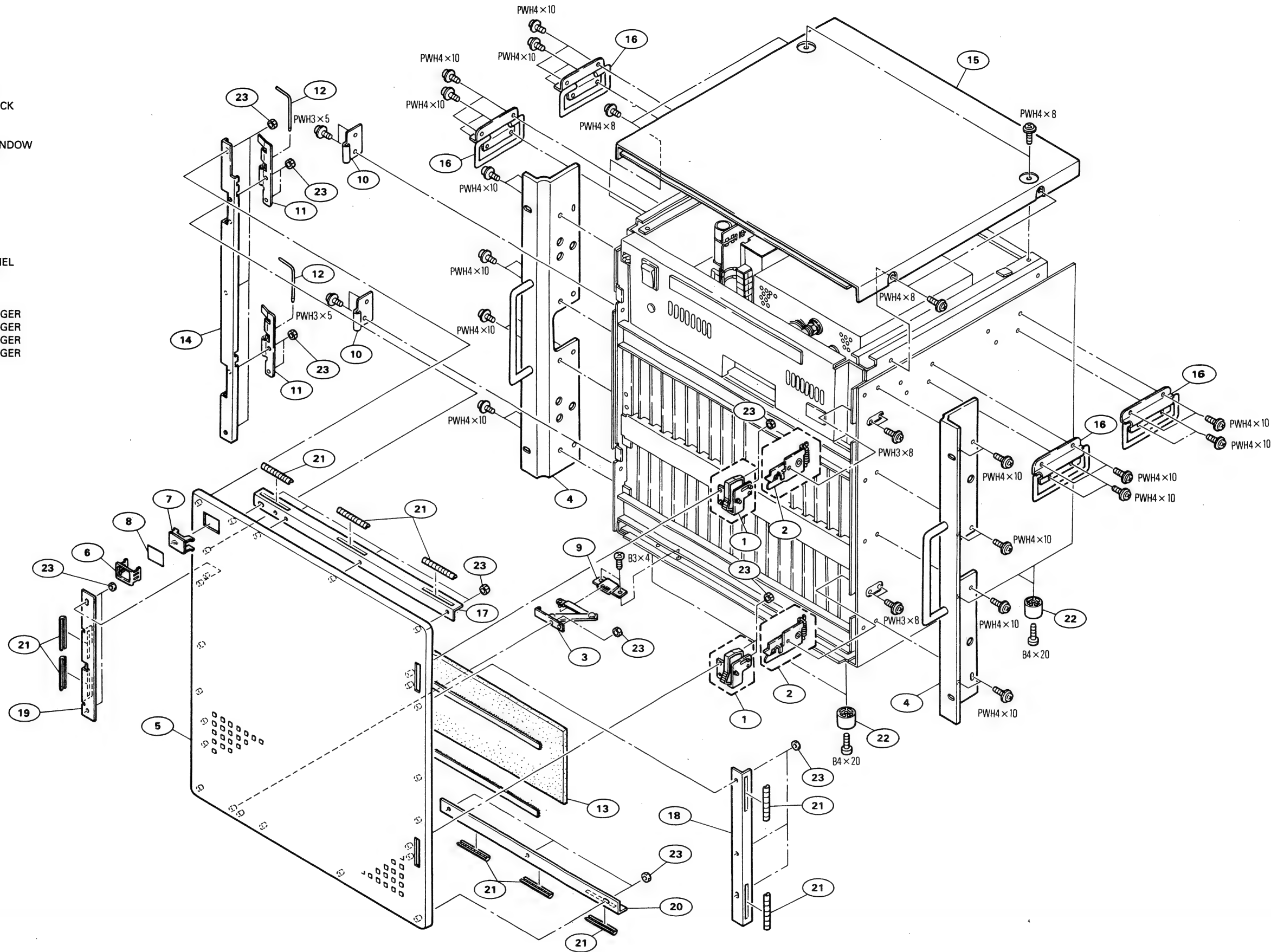
- (1) The shaded and △ marked components are critical to safety.
Replace only with same components as specified.
- (2) Replacement Parts supplied from the Sony Parts Center will sometimes have a different shape from the parts. This is due to improved parts and/or engineering changes or standardization of genuine parts.
This manual's exploded views and electrical spare parts lists indicate the part numbers of the standardized genuine parts at the present. Regarding engineering part changes by the engineering department, refer to Sony service bulletins and service manual supplements.
- (3) The parts marked with "s" in the SP column of the exploded views and electrical spare parts lists are normally stocked for replacement purposes. The parts marked with "o" in the SP column are not normally required for routine service work. Orders for parts marked with "o" will be processed, but allow for additional delivery time.
- (4) Item with no part number and/or no description are not stocked because they are seldom required for routine service.
- (5) All capacitors are in micro farads unless otherwise specified.
All resistors are in ohms.

10-2. EXPLODED VIEW

10-2-1. Chassis (1)	10-2
10-2-2. Chassis (2)	10-3
10-2-3. Power Unit	10-4
10-2-4. Rear Panel	10-5

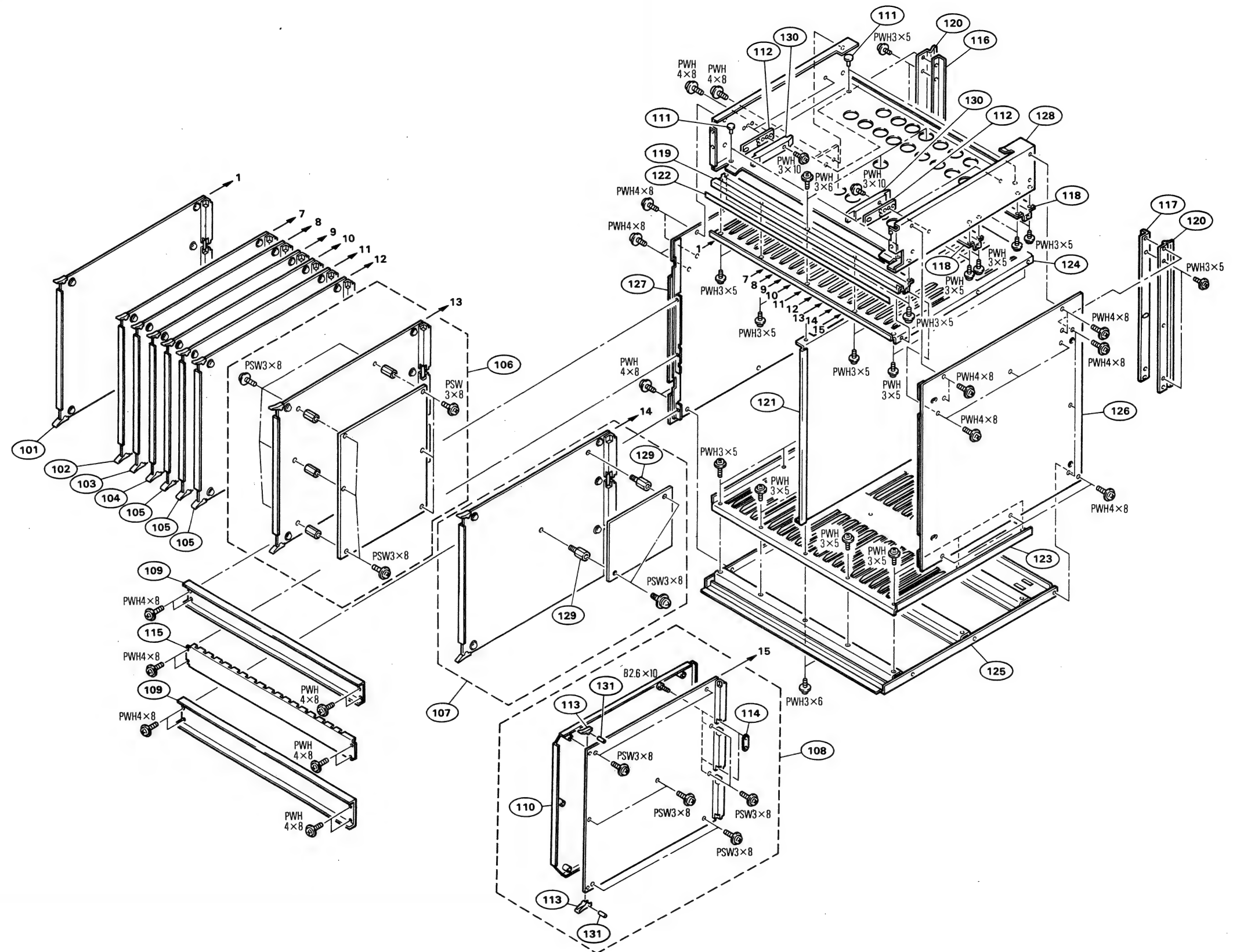
10-2-1. Chassis (1)

No.	Part No.	SP Description
1	A-6279-484-A	o HANDLE ASSY, DOOR
2	X-2127-216-1	o LOCK ASSY, DOOR
3	X-3165-067-1	o STOPPER ASSY
4	X-3165-221-1	o ANGLE ASSY (10U), RACK
5	X-3165-447-2	o PANEL ASSY, FRONT
6	2-139-192-01	o FRAME, INDICATOR WINDOW
7	2-139-193-01	o WINDOW, INDICATOR
8	2-249-353-00	o COVER, LAMP
9	3-166-131-01	o TABLE (H), STAY
10	3-166-133-01	o HINGE (H)
11	3-166-135-01	o HINGE (F)
12	3-166-136-01	o PIN, HINGE
13	3-166-203-02	o FILTER
14	3-166-223-02	o PLATE, SIDE, LEFT, PANEL
15	3-166-229-01	o PLATE, TOP
16	3-176-177-01	o HANDLE
17	3-175-256-01	o BRACKET (4), SNAP FINGER
18	3-175-257-01	o BRACKET (2), SNAP FINGER
19	3-175-258-01	o BRACKET (3), SNAP FINGER
20	3-175-259-01	o BRACKET (1), SNAP FINGER
21	3-175-260-01	o FINGER, SNAP
22	3-642-656-01	s FOOT
23	4-334-513-00	s NUT, NYLON



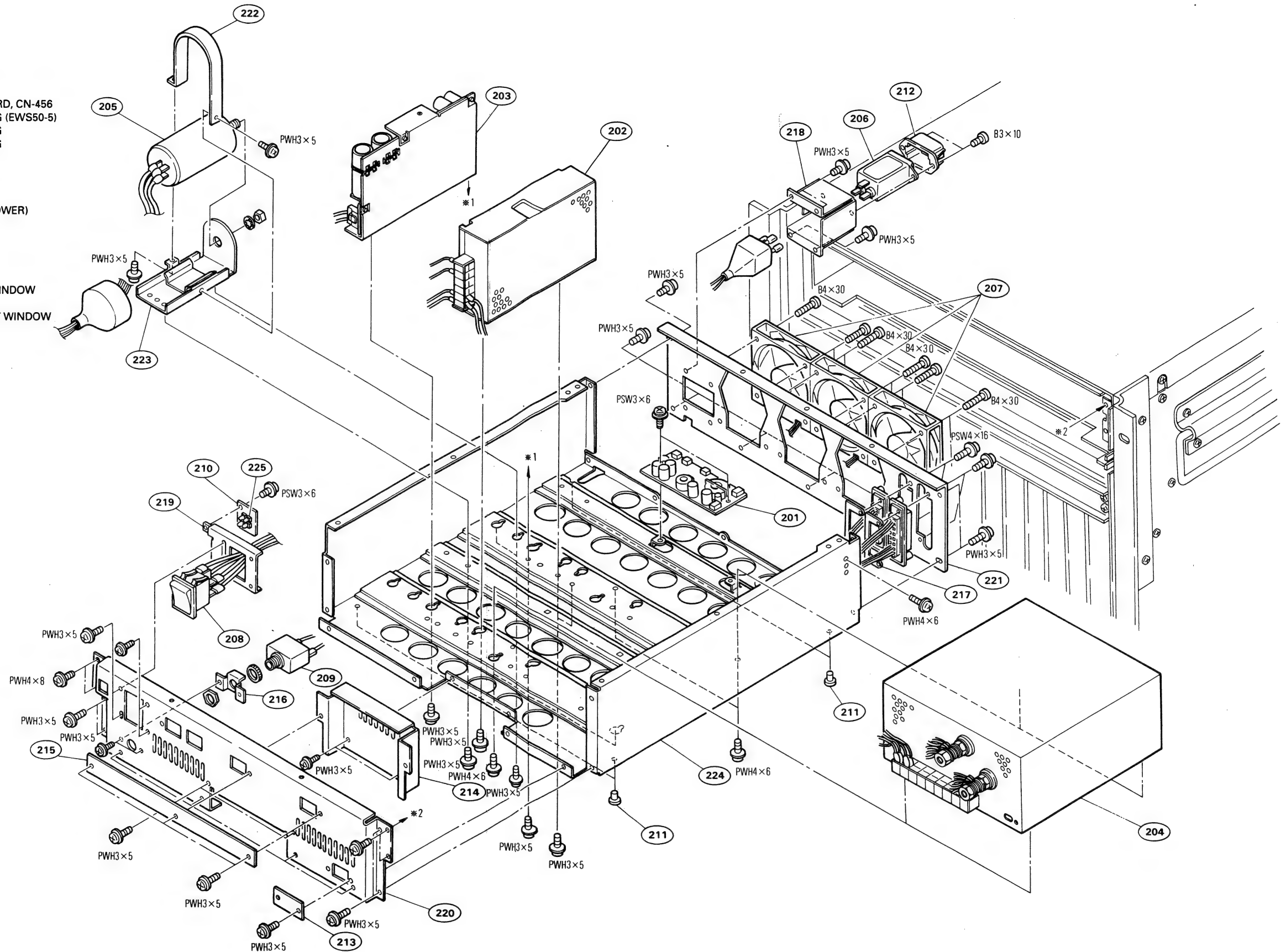
10-2-2. Chassis (2)

No.	Part No.	SP Description
101	A-8271-396-A	o MOUNTED CIRCUIT BOARD, CPU-106
102	A-6259-455-A	o MOUNTED CIRCUIT BOARD, ALU-11
103	A-6259-456-A	o MOUNTED CIRCUIT BOARD, DPR-18
104	A-6259-457-A	o MOUNTED CIRCUIT BOARD, DPR-17
105	A-6259-458-A	o MOUNTED CIRCUIT BOARD, MEM-41
106	A-6259-459-A	o MOUNTED CIRCUIT BOARD, DLP-9
107	A-8271-397-A	o MOUNTED CIRCUIT BOARD, DPR-42
108	A-6259-461-A	o MOUNTED CIRCUIT BOARD, DPR-16
109	X-3165-222-2	o RETAINER ASSY, PC BOARD
110	X-3165-223-1	o PLATE ASSY, SHIELD
111	2-249-250-00	s CLIP (SMALL), CANOE
112	3-166-132-02	o SPACER (G)
113	3-166-184-01	o LEVER, PC BOARD
114	3-166-185-01	s NUT, PLATE
115	3-166-191-02	o HOLDER, PC BOARD
116	3-166-193-01	o BRACKET (L), MOTHER BOARD
117	3-166-194-01	o BRACKET (R), MOTHER BOARD
118	3-166-195-01	o RETAINER, RAIL TABLE
119	3-166-196-02	o RETAINER, EJECTOR
120	3-166-200-01	o BRACKET, FCC
121	3-166-213-02	o REINFORCEMENT
122	3-166-214-01	o SHEET, INDICATION
123	3-166-230-02	o TABLE, RAIL
124	3-166-230-12	o TABLE, RAIL
125	3-166-231-02	o PLATE, BOTTOM
126	3-166-232-02	o PLATE (R), SIDE
127	3-166-233-02	o PLATE (L), SIDE
128	3-167-575-13	o TABLE, SLIDE, POWER
129	3-674-639-01	s SUPPORT (L=8)
130	3-724-333-11	o GUIDE (S), CASSETTE
131	7-626-320-11	s PIN, SPRING 3 x 8



10-2-3. Power Unit

No.	Part No.	SP Description
201	△ A-6263-090-A	o MOUNTED CIRCUIT BOARD, CN-456
202	△ 1-413-477-12	s REGULATOR, SWITCHING (EWS50-5)
203	△ 1-413-569-11	s REGULATOR, SWITCHING
204	△ 1-413-594-12	s REGULATOR, SWITCHING
205	△ 1-424-136-11	s FILTER, NOISE
206	△ 1-540-178-11	s INLET, AC (GL-2100C-30)
207	1-541-329-31	s FAN, DC (WITH ALARM)
208	△ 1-572-345-11	s SWITCH, SEESAW (AC POWER)
209	△ 1-576-044-11	s BREAKER, CIRCUIT
210	1-631-489-11	o PC BOARD, LE-76
211	2-249-250-00	s CLIP (SMALL), CANOE
212	2-990-241-02	o HOLDER (A), PLUG
213	3-166-137-01	o COVER, ADJUSTMENT WINDOW
214	3-166-160-01	o COVER, HANDLE
215	3-166-188-02	o COVER (2), ADJUSTMENT WINDOW
216	3-166-189-02	o BRACKET, BREAKER
217	3-166-190-12	s NUT, PLATE
218	3-166-206-02	o BRACKET, AC INLET
219	3-166-207-01	o BRACKET, AC SW
220	3-166-224-03	o PANEL, FRONT, POWER
221	3-166-225-02	o PANEL, REAR, POWER
222	3-167-572-01	o BRACKET (2), FILTER
223	3-167-573-01	o BRACKET (1), FILTER
224	3-167-574-03	o CHASSIS, POWER
225	3-674-390-00	o HOLDER (B), LED



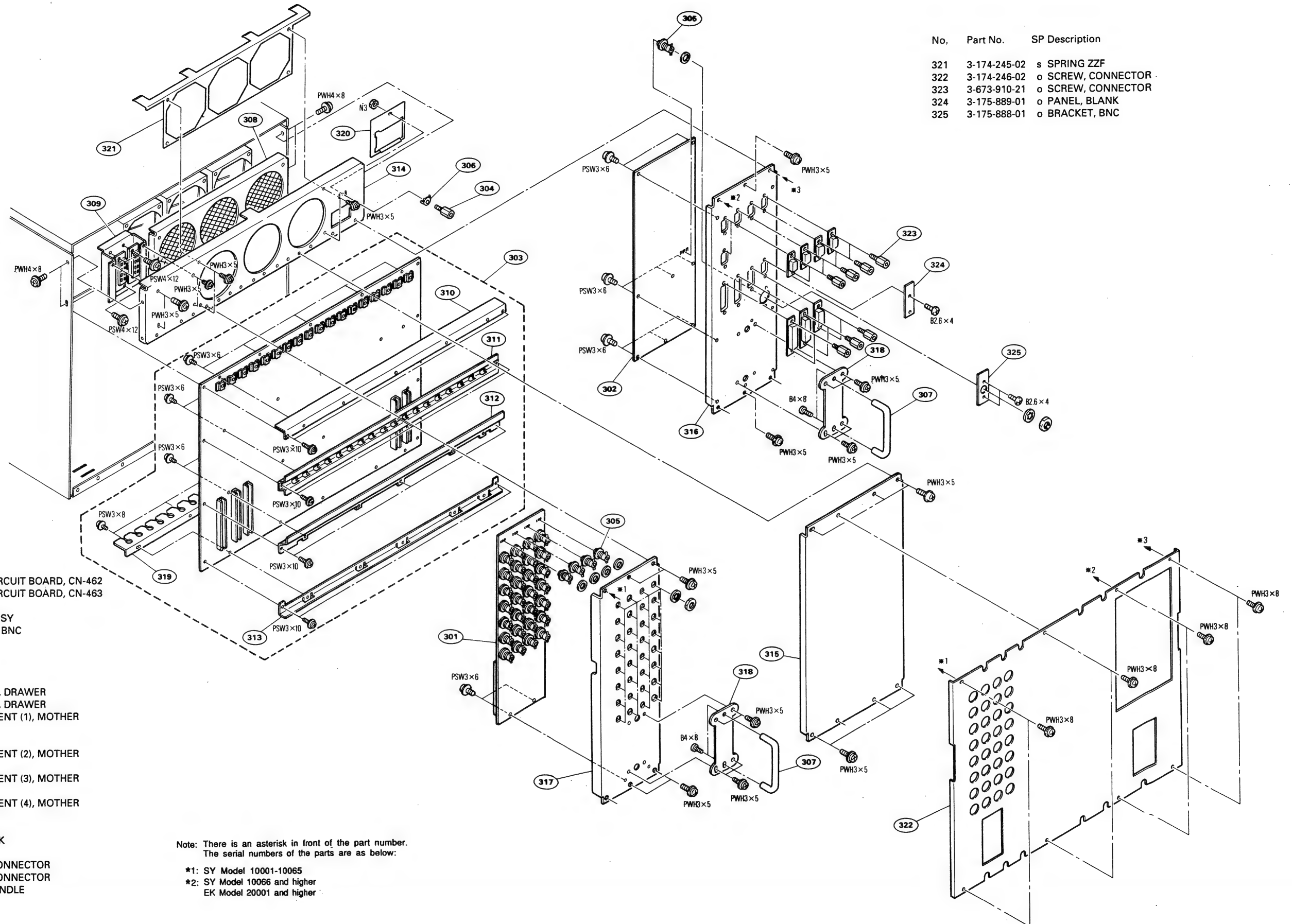
10-2-4. Rear Panel

No.	Part No.	SP Description
301	A-6259-452-A	o MOUNTED CIRCUIT BOARD, CN-462
302	A-6259-453-B	o MOUNTED CIRCUIT BOARD, CN-463
303	A-6279-734-A	o MB-305 ASSY
304	X-2068-004-0	s TERMINAL ASSY
305	I-580-356-11	s CONNECTOR, BNC
306	2-068-008-00	s WASHER
307	2-270-616-00	o HANDLE
308	3-166-197-01	o VENTILATOR
309 *1	3-166-199-02	o BRACKET, CN, DRAWER
*2	3-166-199-03	o BRACKET, CN, DRAWER
310	3-166-208-02	o REINFORCEMENT (1), MOTHER BOARD
311	3-166-209-01	o REINFORCEMENT (2), MOTHER BOARD
312	3-166-210-02	o REINFORCEMENT (3), MOTHER BOARD
313	3-166-211-02	o REINFORCEMENT (4), MOTHER BOARD
314	3-166-212-01	o PANEL, REAR
315	3-166-378-03	o PANEL, BLANK
316	3-166-379-04	o PANEL, (1), CONNECTOR
317	3-166-380-02	o PANEL, (2), CONNECTOR
318	3-167-576-01	o BRACKET, HANDLE
319	3-168-628-01	o GUIDE, PCB
320	3-174-244-02	s SPRING, FCC

Note: There is an asterisk in front of the part number.
The serial numbers of the parts are as below:

- *1: SY Model 10001-10065
- *2: SY Model 10066 and higher
EK Model 20001 and higher

No.	Part No.	SP Description
321	3-174-245-02	s SPRING ZZP
322	3-174-246-02	o SCREW, CONNECTOR
323	3-673-910-21	o SCREW, CONNECTOR
324	3-175-889-01	o PANEL, BLANK
325	3-175-888-01	o BRACKET, BNC



10-3. ELECTRICAL PARTS LIST

General Purpose Electrical Parts List

Parts that are not listed in the "reference numbers order list" are shown in following list.
Reference numbers are omitted.

CAPACITOR, CERAMIC, STACKED

Part No.	SP Description
1-162-757-11	s CAP, CERAMIC 220pF 5% 50V
1-162-762-11	s CAP, CERAMIC 560pF 5% 50V
1-162-764-11	s CAP, CERAMIC 820pF 5% 50V
1-162-765-11	s CAP, CERAMIC 0.001 5% 50V
1-162-769-11	s CAP, CERAMIC 0.0022 5% 50V
1-162-777-11	s CAP, CERAMIC 0.01 5% 50V
1-162-781-11	s CAP, CERAMIC 0.022 5% 50V
1-162-788-11	s CAP, CERAMIC 0.0033 10% 50V
1-162-790-11	s CAP, CERAMIC 0.0047 10% 50V
1-162-806-11	s CAP, CERAMIC 0.1 10% 50V
1-162-810-11	s CAP, CERAMIC 0.22 10% 50V
1-162-812-11	s CAP, CERAMIC 0.33 10% 50V
1-161-883-11	s CAP, CERAMIC 0.0015 50V
1-161-884-11	s CAP, CERAMIC 0.0022 50V
1-161-885-11	s CAP, CERAMIC 0.0033 50V
1-161-886-11	s CAP, CERAMIC 0.0047 50V
1-161-887-11	s CAP, CERAMIC 0.0068 50V
1-161-888-11	s CAP, CERAMIC 0.01 50V
1-161-889-11	s CAP, CERAMIC 0.015 50V
1-161-890-11	s CAP, CERAMIC 0.022 50V
1-161-891-11	s CAP, CERAMIC 0.033 50V
1-161-892-11	s CAP, CERAMIC 0.047 50V
1-161-893-11	s CAP, CERAMIC 0.068 50V
1-161-485-00	s CAP, CERAMIC 0.1 50V
1-161-895-11	s CAP, CERAMIC 0.15 50V
1-161-896-11	s CAP, CERAMIC 0.22 50V
1-161-897-11	s CAP, CERAMIC 0.33 50V
1-161-898-11	s CAP, CERAMIC 0.47 50V
1-161-899-11	s CAP, CERAMIC 0.68 50V
1-161-900-11	s CAP, CERAMIC 1.0 50V
1-161-494-00	s CAP, CERAMIC 0.22 25V
1-164-208-11	s CAP, CERAMIC 0.1 99% 50V
1-164-208-21	s CAP, CERAMIC 0.1 99% 50V

RESISTOR, METAL

Part No.	SP Description
1-215-373-31	s RES, METAL 10 1% 1/6W
1-215-374-00	s RES, METAL 11 1% 1/6W
1-215-375-00	s RES, METAL 12 1% 1/6W
1-215-376-00	s RES, METAL 13 1% 1/6W
1-215-377-00	s RES, METAL 15 1% 1/6W
1-215-378-00	s RES, METAL 16 1% 1/6W
1-215-379-00	s RES, METAL 18 1% 1/6W
1-215-380-00	s RES, METAL 20 1% 1/6W
1-215-381-00	s RES, METAL 22 1% 1/6W
1-215-382-00	s RES, METAL 24 1% 1/6W
1-215-383-00	s RES, METAL 27 1% 1/6W
1-215-384-00	s RES, METAL 30 1% 1/6W
1-215-385-00	s RES, METAL 33 1% 1/6W
1-215-386-00	s RES, METAL 36 1% 1/6W
1-215-387-00	s RES, METAL 39 1% 1/6W
1-215-388-00	s RES, METAL 43 1% 1/6W
1-215-389-00	s RES, METAL 47 1% 1/6W
1-215-390-00	s RES, METAL 51 1% 1/6W
1-215-391-00	s RES, METAL 56 1% 1/6W
1-215-392-00	s RES, METAL 62 1% 1/6W
1-215-393-00	s RES, METAL 68 1% 1/6W
1-215-394-00	s RES, METAL 75 1% 1/6W
1-215-395-00	s RES, METAL 82 1% 1/6W
1-215-396-00	s RES, METAL 91 1% 1/6W
1-215-397-00	s RES, METAL 100 1% 1/6W
1-215-398-00	s RES, METAL 110 1% 1/6W
1-215-399-00	s RES, METAL 120 1% 1/6W
1-215-400-00	s RES, METAL 130 1% 1/6W
1-215-401-00	s RES, METAL 150 1% 1/6W
1-215-402-00	s RES, METAL 160 1% 1/6W
1-215-403-00	s RES, METAL 180 1% 1/6W
1-215-404-00	s RES, METAL 200 1% 1/6W
1-215-405-00	s RES, METAL 220 1% 1/6W
1-215-406-00	s RES, METAL 240 1% 1/6W
1-215-407-00	s RES, METAL 270 1% 1/6W
1-215-408-00	s RES, METAL 300 1% 1/6W
1-215-409-00	s RES, METAL 330 1% 1/6W
1-215-410-00	s RES, METAL 360 1% 1/6W
1-215-411-00	s RES, METAL 390 1% 1/6W
1-215-412-00	s RES, METAL 430 1% 1/6W
1-215-413-00	s RES, METAL 470 1% 1/6W
1-215-414-00	s RES, METAL 510 1% 1/6W
1-215-415-00	s RES, METAL 560 1% 1/6W
1-215-416-00	s RES, METAL 620 1% 1/6W
1-215-417-00	s RES, METAL 680 1% 1/6W
1-215-418-00	s RES, METAL 750 1% 1/6W
1-215-419-00	s RES, METAL 820 1% 1/6W
1-215-420-00	s RES, METAL 910 1% 1/6W
1-215-421-00	s RES, METAL 1.0k 1% 1/6W
1-215-422-00	s RES, METAL 1.1k 1% 1/6W
1-215-423-00	s RES, METAL 1.2k 1% 1/6W
1-215-424-00	s RES, METAL 1.3k 1% 1/6W
1-215-425-00	s RES, METAL 1.5k 1% 1/6W
1-215-426-00	s RES, METAL 1.6k 1% 1/6W
1-215-427-00	s RES, METAL 1.8k 1% 1/6W
1-215-428-00	s RES, METAL 2.0k 1% 1/6W
1-215-429-00	s RES, METAL 2.2k 1% 1/6W
1-215-430-00	s RES, METAL 2.4k 1% 1/6W
1-215-431-00	s RES, METAL 2.7k 1% 1/6W
1-215-432-00	s RES, METAL 3.0k 1% 1/6W

(RESISTOR, METAL)

Part No.	SP Description
1-215-433-00	s RES, METAL 3.3k 1% 1/6W
1-215-434-00	s RES, METAL 3.6k 1% 1/6W
1-215-435-00	s RES, METAL 3.9k 1% 1/6W
1-215-436-00	s RES, METAL 4.3k 1% 1/6W
1-215-437-00	s RES, METAL 4.7k 1% 1/6W
1-215-438-00	s RES, METAL 5.1k 1% 1/6W
1-215-439-00	s RES, METAL 5.6k 1% 1/6W
1-215-440-00	s RES, METAL 6.2k 1% 1/6W
1-215-441-00	s RES, METAL 6.8k 1% 1/6W
1-215-442-00	s RES, METAL 7.5k 1% 1/6W
1-215-443-00	s RES, METAL 8.2k 1% 1/6W
1-215-444-00	s RES, METAL 9.1k 1% 1/6W
1-215-445-00	s RES, METAL 10k 1% 1/6W
1-215-446-00	s RES, METAL 11k 1% 1/6W
1-215-447-00	s RES, METAL 12k 1% 1/6W
1-215-448-00	s RES, METAL 13k 1% 1/6W
1-215-449-00	s RES, METAL 15k 1% 1/6W
1-215-450-00	s RES, METAL 16k 1% 1/6W
1-215-451-00	s RES, METAL 18k 1% 1/6W
1-215-452-00	s RES, METAL 20k 1% 1/6W
1-215-453-00	s RES, METAL 22k 1% 1/6W
1-215-454-00	s RES, METAL 24k 1% 1/6W
1-215-455-00	s RES, METAL 27k 1% 1/6W
1-215-456-00	s RES, METAL 30k 1% 1/6W
1-215-457-00	s RES, METAL 33k 1% 1/6W
1-215-458-00	s RES, METAL 36k 1% 1/6W
1-215-459-00	s RES, METAL 39k 1% 1/6W
1-215-460-00	s RES, METAL 43k 1% 1/6W
1-215-461-00	s RES, METAL 47k 1% 1/6W
1-215-462-00	s RES, METAL 51k 1% 1/6W
1-215-463-00	s RES, METAL 56k 1% 1/6W
1-215-464-00	s RES, METAL 62k 1% 1/6W
1-215-465-00	s RES, METAL 68k 1% 1/6W
1-215-466-00	s RES, METAL 75k 1% 1/6W
1-215-467-00	s RES, METAL 82k 1% 1/6W
1-215-468-00	s RES, METAL 91k 1% 1/6W
1-215-469-00	s RES, METAL 100k 1% 1/6W
1-215-470-00	s RES, METAL 110k 1% 1/6W
1-215-471-00	s RES, METAL 120k 1% 1/6W
1-215-472-00	s RES, METAL 130k 1% 1/6W
1-215-473-00	s RES, METAL 150k 1% 1/6W
1-215-474-00	s RES, METAL 160k 1% 1/6W
1-215-475-00	s RES, METAL 180k 1% 1/6W
1-215-476-00	s RES, METAL 200k 1% 1/6W
1-215-477-00	s RES, METAL 220k 1% 1/6W
1-215-478-00	s RES, METAL 240k 1% 1/6W
1-215-479-00	s RES, METAL 270k 1% 1/6W
1-215-480-00	s RES, METAL 300k 1% 1/6W
1-215-481-00	s RES, METAL 330k 1% 1/6W
1-215-482-00	s RES, METAL 360k 1% 1/6W
1-215-483-00	s RES, METAL 390k 1% 1/6W
1-215-484-00	s RES, METAL 430k 1% 1/6W
1-215-485-00	s RES, METAL 470k 1% 1/6W
1-215-486-00	s RES, METAL 510k 1% 1/6W
1-215-487-00	s RES, METAL 560k 1% 1/6W
1-215-488-00	s RES, METAL 620k 1% 1/6W
1-215-489-00	s RES, METAL 680k 1% 1/6W
1-215-490-00	s RES, METAL 750k 1% 1/6W
1-215-491-00	s RES, METAL 820k 1% 1/6W
1-215-492-00	s RES, METAL 910k 1% 1/6W

(RESISTOR, METAL)

Part No.	SP Description
1-215-493-00	s RES, METAL 1.0M 1% 1/6W

ALU-11 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-6259-455-A	o MOUNTED CIRCUIT BOARD, ALU-11
3pcs	1-526-659-00	s SOCKET, IC (DP) 28P
3pcs	1-526-816-21	o SOCKET, IC (DP) 24P
2pcs	3-166-184-01	o LEVER, PC BOARD
6pcs	7-621-773-87	s SCREW +B 2.6X10
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
8pcs	7-682-948-01	s SCREW +PSW 3X8
C1	1-124-589-11	s ELECT 47uF 20% 16V
CN1	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN3	1-506-748-11	s CONNECTOR, DIN 96P, MALE
F1	▲1-576-031-11	s FUSE, MICRO
F2	▲1-576-031-11	s FUSE, MICRO
ICA1	8-759-906-78	s IC 74F399PC
ICA2	8-759-906-78	s IC 74F399PC
ICA3	8-759-906-78	s IC 74F399PC
ICA5	8-759-706-53	s IC TMS27C256-ALU11A5V1
ICA6	8-759-706-54	s IC TMS27C256-ALU11A6V1
ICA8	8-759-706-55	s IC TMS27C256-ALU11A8V1
ICA9	8-759-904-87	s IC 74F374PC
ICA10	8-759-904-87	s IC 74F374PC
ICA11	8-759-906-76	s IC 74F283PC
ICA12	8-759-904-87	s IC 74F374PC
ICA13	8-759-906-78	s IC 74F399PC
ICA14	8-759-906-78	s IC 74F399PC
ICA15	8-759-906-78	s IC 74F399PC
ICA16	8-759-906-78	s IC 74F399PC
ICA17	8-759-903-92	s IC SN74LS682N
ICA18	8-759-903-92	s IC SN74LS682N
ICA19	8-759-903-92	s IC SN74LS682N
ICA20	8-759-904-87	s IC 74F374PC
ICA21	8-759-917-48	s IC 74F64PC
ICA22	8-759-904-87	s IC 74F374PC
ICA26	8-759-904-88	s IC 74F534PC
ICA27	8-759-904-87	s IC 74F374PC
ICA28	8-759-908-69	s IC 74F350PC
ICA29	8-759-900-68	s IC SN74ALS30AN
ICA30	8-759-908-69	s IC 74F350PC
ICB1	8-759-916-66	s IC SN74HCT240N
ICB2	8-759-916-96	s IC SN74HC374N
ICB3	8-759-906-78	s IC 74F399PC
ICB9	8-759-904-87	s IC 74F374PC
ICB10	8-759-904-80	s IC 74F04PC
ICB11	8-759-906-76	s IC 74F283PC
ICB12	8-759-900-68	s IC SN74ALS30AN
ICB13	8-759-904-87	s IC 74F374PC
ICB15	8-759-990-97	s IC CXD8156Q
ICB17	8-759-917-89	s IC 74F398PC
ICB18	8-759-906-78	s IC 74F399PC
ICB19	8-759-906-78	s IC 74F399PC
ICB20	8-759-904-87	s IC 74F374PC
ICB21	8-759-918-33	s IC CX20160
ICB22	8-759-904-87	s IC 74F374PC
ICB24	8-759-990-97	s IC CXD8156Q
ICB26	8-759-904-88	s IC 74F534PC
ICB27	8-759-904-87	s IC 74F374PC

(ALU-11 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICB28	8-759-908-69	s IC 74F350PC
ICB29	8-759-908-69	s IC 74F350PC
ICB30	8-759-906-76	s IC 74F283PC
ICC1	8-759-904-77	s IC AM26LS32ACN
ICC2	8-759-906-78	s IC 74F399PC
ICC3	8-759-906-78	s IC 74F399PC
ICC4	8-759-906-78	s IC 74F399PC
ICC5	8-759-918-33	s IC CX20160
ICC6	8-759-918-33	s IC CX20160
ICC7	8-759-904-87	s IC 74F374PC
ICC8	8-759-904-87	s IC 74F374PC
ICC9	8-759-916-96	s IC SN74HC374N
ICC10	8-759-904-87	s IC 74F374PC
ICC11	8-759-904-87	s IC 74F374PC
ICC12	8-759-904-87	s IC 74F374PC
ICC13	8-759-938-44	s IC SN74ALS688N
ICC14	8-759-904-87	s IC 74F374PC
ICC15	8-759-942-67	s IC L29C520PC
ICC16	8-759-942-67	s IC L29C520PC
ICC17	8-759-917-89	s IC 74F398PC
ICC18	8-759-906-78	s IC 74F399PC
ICC19	8-759-906-78	s IC 74F399PC
ICC20	8-759-904-87	s IC 74F374PC
ICC21	8-759-906-76	s IC 74F283PC
ICC22	8-759-906-76	s IC 74F283PC
ICC23	8-759-908-69	s IC 74F350PC
ICC24	8-759-908-69	s IC 74F350PC
ICC25	8-759-906-78	s IC 74F399PC
ICC26	8-759-906-78	s IC 74F399PC
ICC27	8-759-917-54	s IC 74F148PC
ICC28	8-759-908-69	s IC 74F350PC
ICC29	8-759-908-69	s IC 74F350PC
ICC30	8-759-906-76	s IC 74F283PC
ICD1	8-759-916-66	s IC SN74HCT240N
ICD2	8-759-938-44	s IC SN74ALS688N
ICD3	8-759-913-63	s IC SN74ALS374N
ICD4	8-759-904-87	s IC 74F374PC
ICD5	8-759-918-33	s IC CX20160
ICD6	8-759-900-68	s IC SN74ALS30AN
ICD7	8-759-915-41	s IC 74F02PC
ICD8	8-759-001-87	s IC 74F20PC
ICD9	8-759-915-93	s IC 74F163APC
ICD10	8-759-904-80	s IC 74F04PC
ICD11	8-759-916-14	s IC SN74HC04N
ICD12	8-759-906-78	s IC 74F399PC
ICD13	8-759-906-76	s IC 74F283PC
ICD14	8-759-904-87	s IC 74F374PC
ICD17	8-759-906-78	s IC 74F399PC
ICD18	8-759-906-78	s IC 74F399PC
ICD19	8-759-906-78	s IC 74F399PC
ICD20	8-759-942-67	s IC L29C520PC
ICD21	8-759-942-67	s IC L29C520PC
ICD22	8-759-904-80	s IC 74F04PC
ICD23	8-759-908-69	s IC 74F350PC
ICD24	8-759-908-69	s IC 74F350PC
ICD25	8-759-906-78	s IC 74F399PC
ICD26	8-759-906-78	s IC 74F399PC
ICD27	8-759-917-54	s IC 74F148PC

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(ALU-11 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICD28	8-759-908-69	s IC 74F350PC
ICD29	8-759-908-69	s IC 74F350PC
ICD30	8-759-904-87	s IC 74F374PC
ICE1	8-759-916-71	s IC SN74LS244AN
ICE2	8-759-921-69	s IC SN74HC688N
ICE3	8-759-913-63	s IC SN74ALS374N
ICE4	8-759-904-80	s IC 74F04PC
ICE5	8-759-904-80	s IC 74F04PC
ICE6	8-759-904-80	s IC 74F04PC
ICE7	8-759-904-82	s IC 74F10PC
ICE8	8-759-917-48	s IC 74F64PC
ICE9	8-759-917-58	s IC 74F164PC
ICE10	8-759-917-58	s IC 74F164PC
ICE11	8-759-904-81	s IC 74F08PC
ICE12	8-759-906-78	s IC 74F399PC
ICE13	8-759-906-76	s IC 74F283PC
ICE14	8-759-904-87	s IC 74F374PC
ICE15	8-759-942-67	s IC L29C520PC
ICE16	8-759-942-67	s IC L29C520PC
ICE17	8-759-906-78	s IC 74F399PC
ICE18	8-759-906-78	s IC 74F399PC
ICE19	8-759-906-78	s IC 74F399PC
ICE20	8-759-942-67	s IC L29C520PC
ICE21	8-759-942-67	s IC L29C520PC
ICE22	8-759-906-66	s IC 74F86PC
ICE23	8-759-908-69	s IC 74F350PC
ICE24	8-759-908-69	s IC 74F350PC
ICE25	8-759-908-69	s IC 74F350PC
ICE26	8-759-908-69	s IC 74F350PC
ICE27	8-759-916-02	s IC SN74ALS158N
ICE28	8-759-906-76	s IC 74F283PC
ICE29	8-759-904-87	s IC 74F374PC
ICE30	8-759-906-78	s IC 74F399PC
ICF1	8-759-916-71	s IC SN74LS244AN
ICF2	8-759-921-69	s IC SN74HC688N
ICF3	8-759-918-33	s IC CX20160
ICF4	8-759-917-43	s IC SN74HC138N
ICF5	8-759-906-66	s IC 74F86PC
ICF6	8-759-918-33	s IC CX20160
ICF7	8-759-910-01	s IC CX23024
ICF8	8-759-906-66	s IC 74F86PC
ICF9	8-759-915-93	s IC 74F163APC
ICF10	8-759-915-93	s IC 74F163APC
ICF11	8-759-904-87	s IC 74F374PC
ICF12	8-759-904-79	s IC 74F00PC
ICF13	8-759-904-80	s IC 74F04PC
ICF14	8-759-917-48	s IC 74F64PC
ICF17	8-759-904-82	s IC 74F10PC
ICF16	8-759-942-67	s IC L29C520PC
ICF18	8-759-904-87	s IC 74F374PC
ICF19	8-759-705-91	s IC WS57C291B-ALU11F19V1
ICF20	8-759-942-67	s IC L29C520PC
ICF21	8-759-942-67	s IC L29C520PC
ICF22	8-759-904-87	s IC 74F374PC
ICF23	8-759-904-87	s IC 74F374PC
ICF24	8-759-938-44	s IC SN74ALS688N
ICF25	8-759-706-56	s IC TMS27C256-ALU11F25V1

(ALU-11 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICF27	8-759-706-57	s IC TMS27C256-ALU11F27V1
ICF28	8-759-705-90	s IC WS57C291B-ALU11F28V1
ICF29	8-759-918-33	s IC CX20160
ICF30	8-759-906-78	s IC 74F399PC
ICG1	8-759-913-63	s IC SN74ALS374N
ICG2	8-759-916-71	s IC SN74HC244AN
ICG3	8-759-918-33	s IC CX20160
ICG4	8-759-906-78	s IC 74F399PC
ICG5	8-759-906-78	s IC 74F399PC
ICG7	8-759-990-97	s IC CXD8156Q
ICG10	8-759-990-97	s IC CXD8156Q
ICG12	8-759-990-97	s IC CXD8156Q
ICG14	8-759-990-97	s IC CXD8156Q
ICG16	8-759-904-80	s IC 74F04PC
ICG17	8-759-908-69	s IC 74F350PC
ICG18	8-759-908-69	s IC 74F350PC
ICG22	8-759-906-78	s IC 74F399PC
ICG23	8-759-906-76	s IC 74F283PC
ICG24	8-759-904-87	s IC 74F374PC
ICG29	8-759-918-33	s IC CX20160
ICG30	8-759-904-87	s IC 74F374PC
ICH1	8-759-913-63	s IC SN74ALS374N
ICH2	8-759-906-78	s IC 74F399PC
ICH3	8-759-906-78	s IC 74F399PC
ICH4	8-759-906-78	s IC 74F399PC
ICH5	8-759-906-78	s IC 74F399PC
ICH16	8-759-904-81	s IC 74F08PC
ICH17	8-759-908-69	s IC 74F350PC
ICH18	8-759-908-69	s IC 74F350PC
ICH20	8-759-990-97	s IC CXD8156Q
ICH22	8-759-906-78	s IC 74F399PC
ICH23	8-759-906-76	s IC 74F283PC
ICH24	8-759-916-97	s IC SN74HCT374N
ICH25	8-759-916-97	s IC SN74HCT374N
ICH26	8-759-916-97	s IC SN74HCT374N
ICH27	8-759-904-87	s IC 74F374PC
ICH28	8-759-904-87	s IC 74F374PC
ICH29	8-759-938-44	s IC SN74ALS688N
ICH30	8-759-904-87	s IC 74F374PC
ICJ1	8-759-918-33	s IC CX20160
ICJ2	8-759-906-78	s IC 74F399PC
ICJ3	8-759-906-78	s IC 74F399PC
ICJ4	8-759-041-24	s IC AT27HC642-ALU11J4V3
ICJ5	8-759-904-82	s IC 74F10PC
ICJ6	8-759-910-01	s IC CX23024
ICJ7	8-759-910-01	s IC CX23024
ICJ8	8-759-910-01	s IC CX23024
ICJ9	8-759-910-01	s IC CX23024
ICJ10	8-759-910-01	s IC CX23024
ICJ11	8-759-910-01	s IC CX23024
ICJ12	8-759-910-01	s IC CX23024
ICJ13	8-759-910-01	s IC CX23024
ICJ14	8-759-904-87	s IC 74F374PC
ICJ15	8-759-904-87	s IC 74F374PC
ICJ16	8-759-904-87	s IC 74F374PC
ICJ17	8-759-908-69	s IC 74F350PC
ICJ18	8-759-908-69	s IC 74F350PC
ICJ22	8-759-906-78	s IC 74F399PC

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(ALU-11 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICJ23	8-759-906-78	s IC 74F399PC
ICJ24	8-759-904-80	s IC 74F04PC
ICJ25	8-759-500-72	s IC SN74ALS157AN
ICJ26	8-759-500-72	s IC SN74ALS157AN
ICJ27	8-759-904-87	s IC 74F374PC
ICJ28	8-759-918-33	s IC CX20160
ICJ29	8-759-918-33	s IC CX20160
ICJ30	8-759-918-33	s IC CX20160
ICK2	8-759-918-33	s IC CX20160
ICK3	8-759-721-98	s IC AT27HC642-ALU11K3V2
ICK4	8-759-904-82	s IC 74F10PC
ICK5	8-759-904-83	s IC 74F32PC
ICK6	8-759-910-01	s IC CX23024
ICK7	8-759-910-01	s IC CX23024
ICK8	8-759-910-01	s IC CX23024
ICK9	8-759-910-01	s IC CX23024
ICK10	8-759-910-01	s IC CX23024
ICK11	8-759-910-01	s IC CX23024
ICK12	8-759-910-01	s IC CX23024
ICK13	8-759-910-01	s IC CX23024
ICK14	8-759-904-87	s IC 74F374PC
ICK15	8-759-942-67	s IC L29C520PC
ICK16	8-759-942-67	s IC L29C520PC
ICK17	8-759-908-69	s IC 74F350PC
ICK18	8-759-908-69	s IC 74F350PC
ICK19	8-759-918-33	s IC CX20160
ICK20	8-759-906-78	s IC 74F399PC
ICK21	8-759-906-78	s IC 74F399PC
ICK22	8-759-906-78	s IC 74F399PC
ICK23	8-759-906-78	s IC 74F399PC
ICK24	8-759-500-72	s IC SN74ALS157AN
ICK25	8-759-500-72	s IC SN74ALS157AN
ICK26	8-759-500-72	s IC SN74ALS157AN
ICK27	8-759-918-33	s IC CX20160
ICK28	8-759-918-33	s IC CX20160
ICK29	8-759-500-72	s IC SN74ALS157AN
ICK30	8-759-918-33	s IC CX20160

CPU-106 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-8271-396-A	o MOUNTED CIRCUIT BOARD, CPU-106
1pc	X-3165-223-1	o PLATE ASSY, SHIELD
21pcs	1-526-656-00	o SOCKET, IC (DIL) 20P (for ICA18-20, ICC14,15,18,19, ICE14-16,18,19, ICF25,26, ICG11, ICH25, ICJ11,25, ICL25, ICM25, and ICN25)
12pcs	1-526-660-21	o SOCKET, IC (DIL) 32P (for ICG15,19,22, ICJ15,19,22, ICL15,19,22, ICN15,19, and ICN22)
1pc	1-526-662-21	o SOCKET, IC (DIL) 40P (for ICH10)
24pcs	1-695-263-11	o SOCKET, SIL 16P
2pcs	1-526-656-00	o SOCKET, IC (DIL) 20P
2pcs	3-166-184-01	o LEVER, PC BOARD
2pcs	3-166-185-01	s NUT, PLATE
4pcs	7-621-773-87	s SCREW +B 2.6x10
2pcs	7-626-320-11	s PIN, SPRING 3x8
2pcs	7-682-547-04	s SCREW +B 3x6
8pcs	7-682-948-01	s SCREW +PSW 3x8
2pcs	7-685-546-14	s SCREW +BTP 3x8 TYPE2 N-S
BT1	1-528-411-11	s BATTERY, GB150H-3FA2X
C1	1-126-162-11	s ELECT 3.3uF 20% 50V
C2	1-126-162-11	s ELECT 3.3uF 20% 50V
C3	1-126-162-11	s ELECT 3.3uF 20% 50V
C4	1-126-162-11	s ELECT 3.3uF 20% 50V
C6	1-162-215-31	s CERAMIC 47pF 5% 50V
C7	1-126-157-11	s ELECT 10uF 20% 16V
C9	1-126-160-11	s ELECT 1uF 20% 50V
C20	1-126-160-11	s ELECT 1uF 20% 50V
C21	1-126-160-11	s ELECT 1uF 20% 50V
C22	1-126-157-11	s ELECT 10uF 20% 16V
C23	1-126-157-11	s ELECT 10uF 20% 16V
C24	1-131-363-00	s TANTALUM 4.7uF 10% 20V
C25	1-131-363-00	s TANTALUM 4.7uF 10% 20V
C26	1-126-157-11	s ELECT 10uF 20% 16V
C27	1-162-290-31	s CERAMIC 470pF 10% 50V
C28	1-162-290-31	s CERAMIC 470pF 10% 50V
C29	1-162-290-31	s CERAMIC 470pF 10% 50V
C30	1-162-290-31	s CERAMIC 470pF 10% 50V
C31	1-162-290-31	s CERAMIC 470pF 10% 50V
C34	1-124-589-11	s ELECT 47uF 20% 16V
C35	1-124-589-11	s ELECT 47uF 20% 16V
C40	1-126-162-11	s ELECT 3.3uF 20% 50V
C41	1-126-160-11	s ELECT 1uF 20% 50V
C42	1-162-215-31	s CERAMIC 47pF 5% 50V
C50	1-162-195-31	s CERAMIC 4.7pF 10% 50V
C51	1-162-195-31	s CERAMIC 4.7pF 10% 50V
C52	1-162-195-31	s CERAMIC 4.7pF 10% 50V
C53	1-162-195-31	s CERAMIC 4.7pF 10% 50V
C54	1-162-195-31	s CERAMIC 4.7pF 10% 50V
C55	1-162-195-31	s CERAMIC 4.7pF 10% 50V
C56	1-162-195-31	s CERAMIC 4.7pF 10% 50V
C57	1-162-195-31	s CERAMIC 4.7pF 10% 50V
C58	1-126-160-11	s ELECT 1uF 20% 50V
C59	1-126-160-11	s ELECT 1uF 20% 50V
C60	1-126-160-11	s ELECT 1uF 20% 50V

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(CPU-106 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
C61	1-126-160-11	s ELECT 1uF 20% 50V
C62	1-126-160-11	s ELECT 1uF 20% 50V
C63	1-126-160-11	s ELECT 1uF 20% 50V
C64	1-126-160-11	s ELECT 1uF 20% 50V
C65	1-126-160-11	s ELECT 1uF 20% 50V
C188	1-126-162-11	s ELECT 3.3uF 20% 50V
C189	1-126-162-11	s ELECT 3.3uF 20% 50V
C190	1-126-162-11	s ELECT 3.3uF 20% 50V
C191	1-126-162-11	s ELECT 3.3uF 20% 50V
C192	1-126-162-11	s ELECT 3.3uF 20% 50V
C193	1-126-162-11	s ELECT 3.3uF 20% 50V
C194	1-126-162-11	s ELECT 3.3uF 20% 50V
C195	1-126-162-11	s ELECT 3.3uF 20% 50V
CN1	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN3	1-506-748-11	o CONNECTOR, DIN 96P, MALE
CN4	1-563-323-11	s CONNECTOR, D-SUB 9P, FEMALE
COP1	1-563-859-11	s PLUG, SHORTING
COP2	1-563-859-11	s PLUG, SHORTING
COP3	1-563-859-11	s PLUG, SHORTING
COP4	1-563-859-11	s PLUG, SHORTING
COP5	1-563-859-11	s PLUG, SHORTING
COP6	1-563-859-11	s PLUG, SHORTING
COP7	1-563-859-11	s PLUG, SHORTING
COP8	1-563-859-11	s PLUG, SHORTING
COP9	1-563-859-11	s PLUG, SHORTING
COP10	1-563-859-11	s PLUG, SHORTING
COP11	1-563-859-11	s PLUG, SHORTING
COR1	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR2	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR3	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR4	1-564-948-21	o PIN, SHORTING 3P
COR5	1-564-948-21	o PIN, SHORTING 3P
COR6	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR7	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR8	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR9	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR10	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR11	1-564-948-21	o PIN, SHORTING 3P
COR12	1-564-948-21	o PIN, SHORTING 3P
COR13	1-564-948-21	o PIN, SHORTING 3P
COR14	1-564-948-21	o PIN, SHORTING 3P
COR15	1-564-948-21	o PIN, SHORTING 3P
COR16	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)

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Ref. No. or Q'ty	Part No.	SP Description
COR17	1-564-948-21	o PIN, SHORTING 3P
COR18	1-566-388-11	o PIN, SHORTING 8P (used 6P, cut 2P off)
COR19	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR20	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR21	1-566-388-11	s PIN, SHORTING 8P (used 2P, cut 6P off)
COR22	1-564-948-21	o PIN, SHORTING 3P
COR23	1-564-948-21	o PIN, SHORTING 3P
COR24	1-564-948-21	o PIN, SHORTING 3P
D1	8-719-911-19	s DIODE 1SS119
D2	8-719-200-02	s DIODE 10E-2
D3	8-719-911-19	s DIODE 1SS119
D4	8-719-911-19	s DIODE 1SS119
D5	8-719-911-19	s DIODE 1SS119
D6	8-719-911-19	s DIODE 1SS119
D7	8-719-911-19	s DIODE 1SS119
D8	8-719-911-19	s DIODE 1SS119
D9	8-719-911-19	s DIODE 1SS119
D10	8-719-911-19	s DIODE 1SS119
D11	8-719-911-19	s DIODE 1SS119
D12	8-719-911-19	s DIODE 1SS119
D13	8-719-911-19	s DIODE 1SS119
D14	8-719-911-19	s DIODE 1SS119
D15	8-719-974-41	s LED HLMP-6500-010, GRN
D16	8-719-974-41	s LED HLMP-6500-010, GRN
D17	8-719-974-41	s LED HLMP-6500-010, GRN
D18	8-719-974-41	s LED HLMP-6500-010, GRN
D19	8-719-974-39	s LED HLMP-6300-010, RED
D20	8-719-974-41	s LED HLMP-6500-010, GRN
D21	8-719-974-41	s LED HLMP-6500-010, GRN
D22	8-719-974-41	s LED HLMP-6500-010, GRN
D23	8-719-974-41	s LED HLMP-6500-010, GRN
D24	8-719-974-41	s LED HLMP-6500-010, GRN
D25	8-719-974-41	s LED HLMP-6500-010, GRN
D26	8-719-974-41	s LED HLMP-6500-010, GRN
D27	8-719-974-41	s LED HLMP-6500-010, GRN
D28	8-719-974-41	s LED HLMP-6500-010, GRN
D29	8-719-974-39	s LED HLMP-6300-010, RED
D30	8-719-974-39	s LED HLMP-6300-010, RED
D31	8-719-974-41	s LED HLMP-6500-010, GRN
D32	8-719-974-41	s LED HLMP-6500-010, GRN
D33	8-719-974-41	s LED HLMP-6500-010, GRN
D34	8-719-974-41	s LED HLMP-6500-010, GRN
D35	8-719-974-41	s LED HLMP-6500-010, GRN
D36	8-719-974-41	s LED HLMP-6500-010, GRN
D37	8-719-974-41	s LED HLMP-6500-010, GRN
D38	8-719-974-41	s LED HLMP-6500-010, GRN
D39	8-719-974-41	s LED HLMP-6500-010, GRN
D40	8-719-974-41	s LED HLMP-6500-010, GRN
D41	8-719-974-41	s LED HLMP-6500-010, GRN
D42	8-719-974-41	s LED HLMP-6500-010, GRN
D43	8-719-974-41	s LED HLMP-6500-010, GRN
D44	8-719-974-41	s LED HLMP-6500-010, GRN
D45	8-719-974-41	s LED HLMP-6500-010, GRN

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(CPU-106 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
D46	8-719-974-41 s	LED HLMP-6500-010, GRN
D47	8-719-974-41 s	LED HLMP-6500-010, GRN
F1	▲1-576-031-11 s	FUSE 125V 10A
F2	▲1-576-031-11 s	FUSE 125V 10A
ICA4	8-759-916-65 s	IC SN74HC240AN
ICA5	8-759-916-55 s	IC SN74HC175AN
ICA7	8-759-916-65 s	IC SN74HC240AN
ICA16	8-759-978-92 s	IC 74AC32PC
ICA17	8-759-987-30 s	IC 74ACT373PC
ICA18	8-759-071-99 s	IC GAL16V8B-CPU106A18V1, PLD
ICA19	8-759-072-00 s	IC GAL16V8B-CPU106A19V1, PLD
ICA20	8-759-072-01 s	IC GAL16V8B-CPU106A20V1, PLD
ICA21	8-759-917-72 s	IC 74F244PC
ICA24	8-759-980-08 s	IC 74AC163PC
ICB8	8-759-916-20 s	IC SN74HC14AN
ICC1	8-759-981-64 s	IC LM2903DQ
ICC2	8-759-105-76 s	IC UPD71059C
ICC4	8-759-916-79 s	IC SN74HC273AN
ICC5	8-759-916-65 s	IC SN74HC240AN
ICC7	8-759-916-65 s	IC SN74HC240AN
ICC11	8-759-505-28 s	IC MAX691CPE
ICC14	8-759-072-02 s	IC GAL16V8B-CPU106C14V1, PLD
ICC15	8-759-072-03 s	IC GAL16V8B-CPU106C15V1, PLD
ICC16	8-759-244-05 s	IC TC74AC164P
ICC18	8-759-072-04 s	IC GAL16V8B-CPU106C18V1, PLD
ICC19	8-759-072-05 s	IC GAL16V8B-CPU106C19V1, PLD
ICD1	8-759-239-47 s	IC TC74HC123AP
ICD8	8-759-506-25 s	IC MB8431-90LP
ICD10	8-759-970-04 s	IC MB8421-90LP
ICD11	8-759-001-00 s	IC MC74HC132N
ICD22	8-759-504-62 s	IC A80486DX-33
ICE1	8-759-904-77 s	IC AM26LS32ACN
ICE2	8-759-905-41 s	IC SN74LS640-1N
ICE3	8-759-981-01 s	IC 74ACT245PC
ICE4	8-759-004-70 s	IC MC74HCT245N
ICE5	8-759-004-70 s	IC MC74HCT245N
ICE7	8-759-987-30 s	IC 74ACT373PC
ICE14	8-759-072-06 s	IC GAL16V8B-CPU106E14V1, PLD
ICE15	8-759-072-07 s	IC GAL16V8B-CPU106E15V1, PLD
ICE16	8-759-072-08 s	IC GAL16V8B-CPU106E16V1, PLD
ICE17	8-759-987-30 s	IC 74ACT373PC
ICE18	8-759-072-09 s	IC GAL16V8B-CPU106E18V1, PLD
ICE19	8-759-072-10 s	IC GAL16V8B-CPU106E19V1, PLD
ICF2	8-759-905-41 s	IC SN74LS640-1N
ICF3	8-759-981-01 s	IC 74ACT245PC
ICF4	8-759-004-70 s	IC MC74HCT245N
ICF5	8-759-004-70 s	IC MC74HCT245N
ICF7	8-759-239-47 s	IC TC74HC123AP
ICF8	8-759-994-85 s	IC 74AC245PC
ICF9	8-759-987-30 s	IC 74ACT373PC
ICF12	8-759-904-80 s	IC 74F04PC
ICF25	8-759-072-11 s	IC GAL16V8B-CPU106F25V1, PLD
ICF26	8-759-072-12 s	IC GAL16V8B-CPU106F26V1, PLD
ICG11	8-759-072-13 s	IC GAL16V8B-CPU106G11V1, PLD
ICG14	8-759-993-89 s	IC 74F646PC
ICG17	8-752-341-46 s	IC CXK581001P-70L

(CPU-106 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICG18	8-752-341-46 s	IC CXK581001P-70L
ICG19	8-759-071-93 s	IC 27C020-CPU106G19V1.0, EPROM
ICG20	8-759-993-89 s	IC 74F646PC
ICG23	8-752-341-46 s	IC CXK581001P-70L
ICG24	8-752-341-46 s	IC CXK581001P-70L
ICH1	8-759-987-31 s	IC 74ACT244PC
ICH2	8-759-987-31 s	IC 74ACT244PC
ICH3	8-759-987-31 s	IC 74ACT244PC
ICH4	8-759-748-33 s	IC HN58C65P-25, EEROM, BLANK
ICH6	8-759-987-30 s	IC 74ACT373PC
ICH7	8-759-987-30 s	IC 74ACT373PC
ICH8	8-759-994-85 s	IC 74AC245PC
ICH9	8-759-987-30 s	IC 74ACT373PC
ICH10	8-752-800-48 s	IC CXQ70116P-8
ICH25	8-759-072-14 s	IC GAL16V8B-CPU106H25V1, PLD
ICJ1	8-759-916-20 s	IC SN74HC14AN
ICJ2	8-759-987-31 s	IC 74ACT244PC
ICJ3	8-759-987-31 s	IC 74ACT244PC
ICJ4	8-759-239-47 s	IC TC74HC123AP
ICJ6	8-759-987-30 s	IC 74ACT373PC
ICJ7	8-759-916-14 s	IC SN74HC04AN
ICJ8	8-759-917-37 s	IC SN74HC4024N
ICJ11	8-759-072-15 s	IC GAL16V8B-CPU106J11V1, PLD
ICJ12	8-759-107-56 s	IC CXQ71011P
ICJ13	8-759-980-06 s	IC 74AC74PC
ICJ14	8-759-993-89 s	IC 74F646PC
ICJ17	8-752-341-46 s	IC CXK581001P-70L
ICJ18	8-752-341-46 s	IC CXK581001P-70L
ICJ19	8-759-071-94 s	IC 27C020-CPU106J19V1.0, EPROM
ICJ20	8-759-993-89 s	IC 74F646PC
ICJ23	8-752-341-46 s	IC CXK581001P-70L
ICJ24	8-752-341-46 s	IC CXK581001P-70L
ICJ25	8-759-072-16 s	IC GAL16V8B-CPU106J25V1, PLD
ICK10	8-759-505-28 s	IC MAX691CPE
ICK11	8-759-978-92 s	IC 74AC32PC
ICK12	8-759-916-55 s	IC SN74HC175AN
ICL1	8-759-926-30 s	IC AM26LS30PC
ICL2	8-759-904-77 s	IC AM26LS32ACN
ICL4	8-759-239-47 s	IC TC74HC123AP
ICL6	8-759-917-43 s	IC SN74HC138AN
ICL7	8-759-153-04 s	IC UPD72001C-11
ICL9	8-759-153-04 s	IC UPD72001C-11
ICL10	8-759-105-76 s	IC UPD71059C
ICL11	8-752-337-62 s	IC CXK58257ASP-10L
ICL12	8-759-071-97 s	IC 27C512-CPU106L12V1.0, EPROM
ICL14	8-759-993-89 s	IC 74F646PC
ICL17	8-752-341-46 s	IC CXK581001P-70L
ICL18	8-752-341-46 s	IC CXK581001P-70L
ICL19	8-759-071-95 s	IC 27C020-CPU106L19V1.0, EPROM
ICL20	8-759-993-89 s	IC 74F646PC
ICL23	8-752-341-46 s	IC CXK581001P-70L
ICL24	8-752-341-46 s	IC CXK581001P-70L
ICL25	8-759-083-48 o	IC GAL16V8B-CPU106L25V2, PLD
ICM1	8-759-926-30 s	IC AM26LS30PC
ICM2	8-759-916-20 s	IC SN74HC14AN
ICM3	8-759-239-47 s	IC TC74HC123AP
ICM4	8-759-239-47 s	IC TC74HC123AP
ICM6	8-759-938-75 s	IC MAX232CPE

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

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(CPU-106 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICM25	8-759-072-18 s	IC GAL16V8B-CPU106M25V1, PLD
ICN3	8-759-206-41 s	IC TD62083AP
ICN4	8-759-916-79 s	IC SN74HC273AN
ICN6	8-759-916-65 s	IC SN74HC240AN
ICN7	8-752-806-91 s	IC CXQ71054P
ICN9	8-759-107-51 s	IC CXQ71051P
ICN10	8-752-806-91 s	IC CXQ71054P
ICN11	8-752-337-62 s	IC CXK58257ASP-10L
ICN12	8-759-071-98 s	IC 27C512-CPU106N12V1.0, EPROM
ICN14	8-759-993-89 s	IC 74F646PC
ICN17	8-752-341-46 s	IC CXK581001P-70L
ICN18	8-752-341-46 s	IC CXK581001P-70L
ICN19	8-759-071-96 s	IC 27C020-CPU106N19V1.0, EPROM
ICN20	8-759-993-89 s	IC 74F646PC
ICN23	8-752-341-46 s	IC CXK581001P-70L
ICN24	8-752-341-46 s	IC CXK581001P-70L
ICN25	8-759-072-19 s	IC GAL16V8B-CPU106N25V1, PLD
Q1	8-729-820-04 s	TRANSISTOR 2SB1140-T
Q2	8-729-195-23 s	TRANSISTOR 2SA952
RB1	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB2	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB3	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB4	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB5	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB6	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB7	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB8	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB9	1-231-533-00 s	RESISTOR BLOCK 10kx4
RB10	1-231-533-00 s	RESISTOR BLOCK 10kx4
RB11	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB12	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB13	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB14	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB15	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB16	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB17	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB18	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB19	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB20	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB21	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB22	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB23	1-231-533-00 s	RESISTOR BLOCK 10kx4
RB24	1-231-505-11 s	RESISTOR BLOCK 680x4
RB25	1-235-541-11 s	RESISTOR BLOCK 680x8
RB26	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB27	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB28	1-231-505-11 s	RESISTOR BLOCK 680x4
RB29	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB30	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB31	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB32	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB33	1-231-410-00 s	RESISTOR BLOCK 10kx8
RB34	1-231-505-11 s	RESISTOR BLOCK 680x4
RB35	1-231-505-11 s	RESISTOR BLOCK 680x4
RB36	1-231-505-11 s	RESISTOR BLOCK 680x4
RV1	1-237-501-21 s	RES, ADJ, METAL 2k

Ref. No. or Q'ty	Part No.	SP Description
RY1	1-515-640-11 s	RELAY (5V)
RY2	1-515-640-11 s	RELAY (5V)
RY3	1-515-640-11 s	RELAY (5V)
RY4	1-515-640-11 s	RELAY (5V)
S1	1-571-029-11 s	SWITCH, PUSH
S2	1-570-623-11 s	SWITCH, DIP 8-CKT
S3	1-570-623-11 s	SWITCH, DIP 8-CKT
S4	1-570-598-11 s	SWITCH, DIP 4-CKT
S5	1-570-602-11 s	SWITCH, DIP 2-CKT
X1	1-577-170-11 s	OSC, CRYSTAL 50.0000MHz
X2	1-577-382-11 s	OSC, CRYSTAL 16.0000MHz
X3	1-577-541-11 s	OSC, CRYSTAL 19.6608MHz

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

CN-456 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-6263-090-A	o MOUNTED CIRCUIT BOARD, CN-456
1pc	7-682-648-09	s SCREW +PS 3X8
1pc	7-684-023-04	s N 3, TYPE 2
C1	1-124-518-11	s ELECT 470uF 20% 6.3V
C2	1-161-485-00	s CERAMIC 0.1uF 50V
C3	1-161-485-00	s CERAMIC 0.1uF 50V
C4	1-161-485-00	s CERAMIC 0.1uF 50V
C5	1-124-518-11	s ELECT 470uF 20% 6.3V
C6	1-161-485-00	s CERAMIC 0.1uF 50V
C7	1-131-347-00	s TANTALUM 1uF 10% 35V
C8	1-124-522-11	s ELECT 270uF 20% 16V
C9	1-161-485-00	s CERAMIC 0.1uF 50V
C10	1-124-522-11	s ELECT 270uF 20% 16V
C11	1-161-485-00	s CERAMIC 0.1uF 50V
C12	1-124-522-11	s ELECT 270uF 20% 16V
C13	1-161-485-00	s CERAMIC 0.1uF 50V
C14	1-124-522-11	s ELECT 270uF 20% 16V
C15	1-161-485-00	s CERAMIC 0.1uF 50V
C16	1-161-485-00	s CERAMIC 0.1uF 50V
C17	1-161-485-00	s CERAMIC 0.1uF 50V
CN1	1-560-366-00	o CONNECTOR POST HEADER, ILG (4P)
CN2	1-506-482-21	o PIN, CONNECTOR 3P
CN3	1-506-482-21	o PIN, CONNECTOR 3P
CN4	1-506-482-21	o PIN, CONNECTOR 3P
CN5	1-560-366-00	o CONNECTOR POST HEADER, ILG (4P)
D1	8-719-500-15	s DIODE S3S4M
F1	▲1-576-031-11	s FUSE, MICRO
FB1	1-535-178-00	s BEAD, FERRITE
FB2	1-535-178-00	s BEAD, FERRITE
IC1	8-759-505-30	s IC LT1171CT
L1	1-424-450-11	s COIL, CHOKE 2.0mH
L2	1-424-449-11	s COIL, CHOKE 110mH
R1	1-249-417-11	s CARBON 1k 5% 1/4W
R2	1-249-429-11	s CARBON 10k 5% 1/4W
R3	1-249-418-11	s CARBON 1.2k 5% 1/4W
R4	1-249-422-11	s CARBON 2.7k 5% 1/4W
R5	1-249-422-11	s CARBON 2.7k 5% 1/4W
R6	1-249-422-11	s CARBON 2.7k 5% 1/4W
R7	1-249-417-11	s CARBON 1k 5% 1/4W
TH1	1-809-179-11	s THERMISTOR 102AT-2

CN-462 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-6259-452-A	o MOUNTED CIRCUIT BOARD, CN-462
1pc	2-270-616-00	o HANDLE
1pc	3-166-380-02	o PANEL (2), CONNECTOR
1pc	3-167-576-01	o BRACKET, HANDLE
6pcs	7-622-207-05	s N 2.6, TYPE 2
6pcs	7-628-254-20	s SCREW +PS 2.6X8
1pc	7-682-561-04	s SCREW +B 4X8
2pcs	7-682-903-01	s SCREW +PWH 3X5
2pcs	7-682-947-01	s SCREW +PSW 3X6
CN1	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN2	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN3	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN4	1-580-356-11	s CONNECTOR, BNC
CN5	1-580-356-11	s CONNECTOR, BNC
CN6	1-580-356-11	s CONNECTOR, BNC
CN7	1-580-356-11	s CONNECTOR, BNC
CN8	1-580-356-11	s CONNECTOR, BNC
CN9	1-580-356-11	s CONNECTOR, BNC
CN10	1-580-356-11	s CONNECTOR, BNC
CN11	1-580-356-11	s CONNECTOR, BNC
CN12	1-580-356-11	s CONNECTOR, BNC
CN13	1-580-356-11	s CONNECTOR, BNC
CN14	1-580-356-11	s CONNECTOR, BNC
CN15	1-580-356-11	s CONNECTOR, BNC
CN16	1-580-356-11	s CONNECTOR, BNC
CN17	1-580-356-11	s CONNECTOR, BNC
CN18	1-580-356-11	s CONNECTOR, BNC
CN19	1-580-356-11	s CONNECTOR, BNC
CN20	1-580-356-11	s CONNECTOR, BNC
CN21	1-580-356-11	s CONNECTOR, BNC
CN22	1-580-356-11	s CONNECTOR, BNC
CN23	1-580-356-11	s CONNECTOR, BNC
CN24	1-580-356-11	s CONNECTOR, BNC
CN25	1-580-356-11	s CONNECTOR, BNC
CN26	1-580-356-11	s CONNECTOR, BNC
CN27	1-580-356-11	s CONNECTOR, BNC
CN28	1-580-356-11	s CONNECTOR, BNC
CN29	1-580-356-11	s CONNECTOR, BNC
CN30	1-580-356-11	s CONNECTOR, BNC
CN31	1-580-356-11	s CONNECTOR, BNC
CN32	1-580-356-11	s CONNECTOR, BNC
CN33	1-580-356-11	s CONNECTOR, BNC
CN34	1-580-356-11	s CONNECTOR, BNC
CN35	1-580-356-11	s CONNECTOR, BNC
COP1	1-563-859-11	s PLUG, SHORTING
COP2	1-563-859-11	s PLUG, SHORTING
COP3	1-563-859-11	s PLUG, SHORTING
COP4	1-563-859-11	s PLUG, SHORTING
COP5	1-563-859-11	s PLUG, SHORTING
COP6	1-563-859-11	s PLUG, SHORTING
COP7	1-563-859-11	s PLUG, SHORTING
COP8	1-563-859-11	s PLUG, SHORTING
COR1	1-566-388-11	o CONNECTOR, 8P, MALE
COR2	1-566-388-11	o CONNECTOR, 8P, MALE
COR3	1-566-388-11	o CONNECTOR, 8P, MALE
COR4	1-566-388-11	o CONNECTOR, 8P, MALE

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

CN-463 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-6259-453-B	o MOUNTED CIRCUIT BOARD, CN-463
1pc	2-270-616-00	o HANDLE
1pc	3-166-379-04	o PANEL (1), CONNECTOR
1pc	3-167-576-01	o BRACKET, HANDLE
16pcs	3-673-910-21	o SCREW, CONNECTOR
4pcs	7-621-773-86	s SCREW, +B 2.6X4
4pcs	7-622-207-05	s N 2.6, TYPE 2
4pcs	7-628-254-20	s SCREW +PS 2.6X8
2pcs	7-682-561-04	s SCREW +B 4X8
4pcs	7-682-903-01	s SCREW +PWH 3X5
8pcs	7-682-947-01	s SCREW +PSW 3X6
CN1	1-580-356-11	s CONNECTOR, BNC
CN2	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN3	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN4	1-563-891-21	s SOCKET, D-SUB CONNECTOR 25P
CN5	1-563-891-21	s SOCKET, D-SUB CONNECTOR 25P
CN6	1-563-826-11	s SOCKET, D-SUB CONNECTOR 15P
CN8	1-563-890-21	s CONNECTOR, D-SUB 9P, FEMALE
CN9	1-563-890-21	s CONNECTOR, D-SUB 9P, FEMALE
CN11	1-563-890-21	s CONNECTOR, D-SUB 9P, FEMALE
CN13	1-563-890-21	s CONNECTOR, D-SUB 9P, FEMALE
CN15	1-563-890-21	s CONNECTOR, D-SUB 9P, FEMALE

DLP-9 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-6259-459-A	o MOUNTED CIRCUIT BOARD, DLP-9
4pcs	1-526-654-00	s SOCKET, IC (DP) 16P
3pcs	1-526-816-21	o SOCKET, IC (DP) 24P
1pc	1-572-594-11	s SWITCH, DIP
6pcs	2-280-622-21	o SUPPORT (M3X10), HEXAGON
2pcs	3-166-184-01	o LEVER, PC BOARD
6pcs	7-621-773-87	s SCREW +B 2.6X10
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
20pcs	7-682-948-01	s SCREW +PSW 3X8
C1	1-124-589-11	s ELECT 47uF 20% 16V
C2	1-124-589-11	s ELECT 47uF 20% 16V
CN1	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN3	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN4	1-580-674-11	o CONNECTOR (PC BOARD) (M) 15P
CN5	1-580-673-11	o CONNECTOR (PC BOARD) (M) 12P
CN6	1-580-673-11	o CONNECTOR (PC BOARD) (M) 12P
CN7	1-580-674-11	o CONNECTOR (PC BOARD) (M) 15P
CN8	1-569-606-11	o CONNECTOR (PC BOARD) (M) 40P
F1	▲ 1-576-031-11	s FUSE, MICRO
F2	▲ 1-576-031-11	s FUSE, MICRO
ICA1	8-759-515-11	s IC SN74ALS574BN
ICA2	8-759-515-11	s IC SN74ALS574BN
ICA3	8-759-515-11	s IC SN74ALS574BN
ICA4	8-759-500-72	s IC SN74ALS157AN
ICA5	8-759-500-72	s IC SN74ALS157AN
ICA6	8-759-946-64	s IC SN74ALS04BN
ICA7	8-759-006-22	s IC SN74LS283N
ICA8	8-759-990-97	s IC CXD8156Q
ICA11	8-759-990-97	s IC CXD8156Q
ICA13	8-759-990-97	s IC CXD8156Q
ICA16	8-759-147-02	s IC UPD42101C-3
ICA17	8-759-147-02	s IC UPD42101C-3
ICA18	8-759-147-02	s IC UPD42101C-3
ICA19	8-759-980-83	s IC 74F574PC
ICA20	8-759-980-83	s IC 74F574PC
ICB1	8-759-515-11	s IC SN74ALS574BN
ICB2	8-759-515-11	s IC SN74ALS574BN
ICB3	8-759-515-11	s IC SN74ALS574BN
ICB4	8-759-052-75	s IC CY7C291L-DLP9B4V3
ICB5	8-759-900-69	s IC SN74ALS74AN
ICB6	8-759-006-22	s IC SN74LS283N
ICB7	8-759-006-22	s IC SN74LS283N
ICB8	8-759-942-67	s IC L29C520PC
ICB10	8-759-990-97	s IC CXD8156Q
ICB13	8-759-990-97	s IC CXD8156Q
ICB16	8-759-147-02	s IC UPD42101C-3
ICB17	8-759-147-02	s IC UPD42101C-3
ICB18	8-759-147-02	s IC UPD42101C-3
ICB19	8-759-147-02	s IC UPD42101C-3
ICB20	8-759-946-64	s IC SN74ALS04BN
ICB21	8-759-147-02	s IC UPD42101C-3
ICB22	8-759-980-83	s IC 74F574PC
ICB23	8-759-980-83	s IC 74F574PC
ICB24	8-759-980-83	s IC 74F574PC
ICB25	8-759-980-83	s IC 74F574PC

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DLP-9 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICB26	8-759-147-02	s IC UPD42101C-3
ICC1	8-759-515-11	s IC SN74ALS574BN
ICC2	8-759-515-11	s IC SN74ALS574BN
ICC3	8-759-918-33	s IC CX20160
ICC4	8-759-500-72	s IC SN74ALS157AN
ICC5	8-759-500-72	s IC SN74ALS157AN
ICC6	8-759-515-11	s IC SN74ALS574BN
ICC7	8-759-515-11	s IC SN74ALS574BN
ICC8	8-759-942-67	s IC L29C520PC
ICC9	8-759-052-76	s IC CY7C291L-DLP9C9V3
ICC10	8-759-990-97	s IC CXD8156Q
ICC13	8-759-990-97	s IC CXD8156Q
ICC18	8-759-147-02	s IC UPD42101C-3
ICC19	8-759-147-02	s IC UPD42101C-3
ICC20	8-759-147-02	s IC UPD42101C-3
ICC21	8-759-147-02	s IC UPD42101C-3
ICC22	8-759-147-02	s IC UPD42101C-3
ICC23	8-759-147-02	s IC UPD42101C-3
ICC24	8-759-147-02	s IC UPD42101C-3
ICC25	8-759-147-02	s IC UPD42101C-3
ICC26	8-759-147-02	s IC UPD42101C-3
ICD1	8-759-515-11	s IC SN74ALS574BN
ICD2	8-759-515-11	s IC SN74ALS574BN
ICD3	8-759-918-33	s IC CX20160
ICD4	8-759-515-11	s IC SN74ALS574BN
ICD5	8-759-052-75	s IC CY7C291L-DLP9B4V3
ICD6	8-759-705-53	s IC MB7112L-DLP9D6V1
ICD7	8-759-705-52	s IC MB7112L-DLP9D7V1
ICD8	8-759-705-57	s IC MB7112L-DLP9D8V1
ICD9	8-759-705-60	s IC MB7112L-DLP9D9V1
ICD10	8-759-990-97	s IC CXD8156Q
ICD20	8-759-147-02	s IC UPD42101C-3
ICD21	8-759-147-02	s IC UPD42101C-3
ICD22	8-759-147-02	s IC UPD42101C-3
ICD23	8-759-147-02	s IC UPD42101C-3
ICD24	8-759-147-02	s IC UPD42101C-3
ICD25	8-759-147-02	s IC UPD42101C-3
ICD26	8-759-147-02	s IC UPD42101C-3
ICE1	8-759-904-77	s IC AM26LS32ACN
ICE2	8-759-900-69	s IC SN74ALS74AN
ICE3	8-759-904-26	s IC SN74ALS08N
ICE4	8-759-500-72	s IC SN74ALS157AN
ICE5	8-759-946-36	s IC SN74ALS163BN
ICE6	8-759-946-36	s IC SN74ALS163BN
ICE7	8-759-912-03	s IC SN74ALS138N
ICE8	8-759-705-56	s IC MB7112L-DLP9E8V1
ICE9	8-759-705-59	s IC MB7112L-DLP9E9V1
ICE14	8-759-990-97	s IC CXD8156Q
ICE17	8-759-990-97	s IC CXD8156Q
ICE20	8-759-990-97	s IC CXD8156Q
ICE22	8-759-990-97	s IC CXD8156Q
ICE24	8-759-147-02	s IC UPD42101C-3
ICE26	8-759-147-02	s IC UPD42101C-3
ICF1	8-759-901-44	s IC 74F240PC
ICF2	8-759-901-44	s IC 74F240PC
ICF3	8-759-946-64	s IC SN74ALS04BN
ICF4	8-759-500-72	s IC SN74ALS157AN
ICF5	8-759-555-34	s IC AT27HC642-DLP9F5V3

(DLP-9 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICF6	8-759-555-34	s IC AT27HC642-DLP9F5V3
ICF7	8-759-555-35	s IC AT27HC642-DLP9F7V3
ICF8	8-759-705-55	s IC MB7112L-DLP9F8V1
ICF9	8-759-705-54	s IC MB7112L-DLP9F9V1
ICF12	8-759-990-97	s IC CXD8156Q
ICF14	8-759-990-97	s IC CXD8156Q
ICF17	8-759-990-97	s IC CXD8156Q
ICF20	8-759-990-97	s IC CXD8156Q
ICF22	8-759-990-97	s IC CXD8156Q
ICF25	8-759-990-97	s IC CXD8156Q
ICG1	8-759-917-17	s IC SN74HCT574AN
ICG3	8-759-500-04	s IC LSP001AC-Q
ICG5	8-759-500-04	s IC LSP001AC-Q
ICG7	8-759-917-17	s IC SN74HCT574AN
ICG9	8-759-500-04	s IC LSP001AC-Q
ICH1	8-759-917-17	s IC SN74HCT574AN
ICH3	8-759-500-04	s IC LSP001AC-Q
ICH5	8-759-500-04	s IC LSP001AC-Q
ICH6	8-759-901-25	s IC SN74LS125AN
ICH7	8-759-917-17	s IC SN74HCT574AN
ICH9	8-759-500-04	s IC LSP001AC-Q
ICJ1	8-759-917-17	s IC SN74HCT574AN
ICJ11	8-759-506-43	s IC TMC2111B2C
ICJ12	8-759-506-43	s IC TMC2111B2C
ICJ13	8-759-980-83	s IC 74F574PC
ICJ14	8-759-506-43	s IC TMC2111B2C
ICJ15	8-759-506-43	s IC TMC2111B2C
ICJ16	8-759-980-83	s IC 74F574PC
ICJ17	8-759-506-43	s IC TMC2111B2C
ICJ18	8-759-506-43	s IC TMC2111B2C
ICJ20	8-759-990-97	s IC CXD8156Q
ICJ22	8-759-990-97	s IC CXD8156Q
ICJ25	8-759-990-97	s IC CXD8156Q
ICK3	8-759-500-04	s IC LSP001AC-Q
ICK5	8-759-500-04	s IC LSP001AC-Q
ICK6	8-759-937-47	s IC SN74ALS86N
ICK7	8-759-917-17	s IC SN74HCT574AN
ICK9	8-759-500-04	s IC LSP001AC-Q
ICK11	8-759-946-64	s IC SN74ALS04BN
ICK12	8-759-946-64	s IC SN74ALS04BN
ICK13	8-759-980-83	s IC 74F574PC
ICK16	8-759-980-83	s IC 74F574PC
ICK17	8-759-980-83	s IC 74F574PC
ICK18	8-759-980-83	s IC 74F574PC
R1	1-249-425-11	s CARBON 4.7k 5% 1/4W
R2	1-249-425-11	s CARBON 4.7k 5% 1/4W
R3	1-249-425-11	s CARBON 4.7k 5% 1/4W
R4	1-249-425-11	s CARBON 4.7k 5% 1/4W
R5	1-249-425-11	s CARBON 4.7k 5% 1/4W
R6	1-249-425-11	s CARBON 4.7k 5% 1/4W
R7	1-249-425-11	s CARBON 4.7k 5% 1/4W
R8	1-249-425-11	s CARBON 4.7k 5% 1/4W
R9	1-249-425-11	s CARBON 4.7k 5% 1/4W
R10	1-249-425-11	s CARBON 4.7k 5% 1/4W
R11	1-249-425-11	s CARBON 4.7k 5% 1/4W
R12	1-249-425-11	s CARBON 4.7k 5% 1/4W
R13	1-249-425-11	s CARBON 4.7k 5% 1/4W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DLP-9 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R14	1-249-425-11	s CARBON 4.7k 5% 1/4W
R15	1-249-425-11	s CARBON 4.7k 5% 1/4W
R16	1-249-425-11	s CARBON 4.7k 5% 1/4W
R17	1-249-425-11	s CARBON 4.7k 5% 1/4W
R18	1-249-425-11	s CARBON 4.7k 5% 1/4W
R19	1-249-410-11	s CARBON 270 5% 1/4W
R20	1-249-410-11	s CARBON 270 5% 1/4W
R21	1-249-410-11	s CARBON 270 5% 1/4W
R22	1-249-410-11	s CARBON 270 5% 1/4W
R23	1-249-410-11	s CARBON 270 5% 1/4W
R24	1-249-410-11	s CARBON 270 5% 1/4W
RB1	1-231-385-00	s RESISTOR BLOCK 4.7kx8
RB2	1-231-525-00	s RESISTOR BLOCK 4.7kx4
RB3	1-231-525-00	s RESISTOR BLOCK 4.7kx4
RB4	1-231-525-00	s RESISTOR BLOCK 4.7kx4
RB5	1-231-525-00	s RESISTOR BLOCK 4.7kx4
RB6	1-231-525-00	s RESISTOR BLOCK 4.7kx4
RB7	1-231-525-00	s RESISTOR BLOCK 4.7kx4
S1	1-570-621-11	s SWITCH, DIP
S2	1-554-027-00	s SWITCH, DIGITAL
S3	1-570-598-11	s SWITCH, DIP 4-CKT
S4	1-554-027-00	s SWITCH, DIGITAL

DLP-10 BOARD

Ref. No. or Q'ty	Part No.	SP Description
6pcs	1-590-194-11	o SOCKET, SIL (12P)
CN1	1-580-675-11	o CONNECTOR (PC BOARD) (F) 15P
CN2	1-562-772-11	o CONNECTOR, 12P, FEMALE
CN3	1-562-772-11	o CONNECTOR, 12P, FEMALE
CN4	1-580-675-11	o CONNECTOR (PC BOARD) (F) 15P
CN5	1-562-773-11	o CONNECTOR, 40P, FEMALE
ICA4	8-759-515-11	s IC SN74ALS574BN
ICA5	8-759-515-11	s IC SN74ALS574BN
ICA6	8-759-052-77	s IC AT27HC642-DLP10A6V3
ICA8	8-759-515-11	s IC SN74ALS574BN
ICA9	8-759-515-11	s IC SN74ALS574BN
ICA10	8-759-052-78	s IC AT27HC642-DLP10A10V3
ICA12	8-759-515-11	s IC SN74ALS574BN
ICA13	8-759-515-11	s IC SN74ALS574BN
ICA14	8-759-052-77	s IC AT27HC642-DLP10A6V3
ICB1	8-752-304-30	s IC CX23043
ICB3	8-752-304-30	s IC CX23043
ICB4	8-759-990-97	s IC CXD8156Q
ICB6	8-759-942-67	s IC L29C520PC
ICB7	8-759-942-67	s IC L29C520PC
ICB8	8-759-990-97	s IC CXD8156Q
ICB10	8-759-942-67	s IC L29C520PC
ICB11	8-759-942-67	s IC L29C520PC
ICB12	8-759-990-97	s IC CXD8156Q
ICB14	8-759-942-67	s IC L29C520PC
ICB15	8-759-942-67	s IC L29C520PC
ICC1	8-759-946-64	s IC SN74ALS04BN
ICC2	8-759-705-46	s IC WS57C291B-DLP10C2V1
ICC3	8-759-705-45	s IC WS57C291B-DLP10C3V1
ICC4	8-759-990-97	s IC CXD8156Q
ICC6	8-759-990-97	s IC CXD8156Q
ICC8	8-759-990-97	s IC CXD8156Q
ICC10	8-759-990-97	s IC CXD8156Q
ICC12	8-759-990-97	s IC CXD8156Q
ICC14	8-759-990-97	s IC CXD8156Q
ICD1	8-759-705-44	s IC WS57C291B-DLP10D1V1
ICD2	8-759-705-43	s IC WS57C291B-DLP10D2V1
ICD3	8-759-705-51	s IC WS57C291B-DLP10D3V1
ICD4	8-759-942-67	s IC L29C520PC
ICD5	8-759-942-67	s IC L29C520PC
ICD6	8-759-515-11	s IC SN74ALS574BN
ICD7	8-759-515-11	s IC SN74ALS574BN
ICD8	8-759-942-67	s IC L29C520PC
ICD9	8-759-942-67	s IC L29C520PC
ICD10	8-759-515-11	s IC SN74ALS574BN
ICD11	8-759-515-11	s IC SN74ALS574BN
ICD12	8-759-942-67	s IC L29C520PC
ICD13	8-759-942-67	s IC L29C520PC
ICD14	8-759-515-11	s IC SN74ALS574BN
ICD15	8-759-515-11	s IC SN74ALS574BN
ICE2	8-759-705-42	s IC WS57C291B-DLP10E2V1
ICE3	8-759-705-50	s IC WS57C291B-DLP10E3V1
ICE4	8-759-990-97	s IC CXD8156Q
ICE6	8-759-990-97	s IC CXD8156Q
ICE8	8-759-990-97	s IC CXD8156Q
ICE10	8-759-990-97	s IC CXD8156Q
ICE12	8-759-990-97	s IC CXD8156Q

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DLP-10 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICE14	8-759-990-97	s IC CXD8156Q
ICF1	8-759-705-48	s IC WS57C291B-DLP10F1V1
ICF2	8-759-705-47	s IC WS57C291B-DLP10F2V1
ICF3	8-759-705-49	s IC WS57C291B-DLP10F3V1
ICG2	8-759-500-72	s IC SN74ALS157AN
ICG3	8-759-500-72	s IC SN74ALS157AN
ICG4	8-759-147-02	s IC UPD42101C-3
ICG5	8-759-147-02	s IC UPD42101C-3
ICG6	8-759-147-02	s IC UPD42101C-3
ICG7	8-759-147-02	s IC UPD42101C-3
ICG8	8-759-147-02	s IC UPD42101C-3
ICG9	8-759-147-02	s IC UPD42101C-3
ICG10	8-759-147-02	s IC UPD42101C-3
ICG11	8-759-147-02	s IC UPD42101C-3
ICG12	8-759-147-02	s IC UPD42101C-3
ICG13	8-759-147-02	s IC UPD42101C-3
ICG14	8-759-147-02	s IC UPD42101C-3
ICG15	8-759-147-02	s IC UPD42101C-3
ICH1	8-759-901-44	s IC 74F240PC
ICH2	8-759-515-11	s IC SN74ALS574BN
ICH3	8-759-515-11	s IC SN74ALS574BN
ICH4	8-759-990-97	s IC CXD8156Q
ICH6	8-759-515-11	s IC SN74ALS574BN
ICH7	8-759-515-11	s IC SN74ALS574BN
ICH8	8-759-990-97	s IC CXD8156Q
ICH10	8-759-515-11	s IC SN74ALS574BN
ICH11	8-759-515-11	s IC SN74ALS574BN
ICH12	8-759-990-97	s IC CXD8156Q
ICH14	8-759-515-11	s IC SN74ALS574BN
ICH15	8-759-515-11	s IC SN74ALS574BN
R1	1-249-425-11	s CARBON 4.7k 5% 1/4W
R2	1-249-425-11	s CARBON 4.7k 5% 1/4W
R3	1-249-425-11	s CARBON 4.7k 5% 1/4W
R4	1-249-425-11	s CARBON 4.7k 5% 1/4W
R5	1-249-425-11	s CARBON 4.7k 5% 1/4W
R6	1-249-425-11	s CARBON 4.7k 5% 1/4W
R7	1-249-425-11	s CARBON 4.7k 5% 1/4W
R8	1-249-425-11	s CARBON 4.7k 5% 1/4W
R9	1-249-425-11	s CARBON 4.7k 5% 1/4W
R10	1-249-425-11	s CARBON 4.7k 5% 1/4W
R11	1-249-425-11	s CARBON 4.7k 5% 1/4W
R12	1-249-425-11	s CARBON 4.7k 5% 1/4W
R13	1-249-425-11	s CARBON 4.7k 5% 1/4W
R14	1-249-425-11	s CARBON 4.7k 5% 1/4W
R15	1-249-425-11	s CARBON 4.7k 5% 1/4W
R16	1-249-425-11	s CARBON 4.7k 5% 1/4W
R17	1-249-425-11	s CARBON 4.7k 5% 1/4W
R18	1-249-425-11	s CARBON 4.7k 5% 1/4W
R19	1-249-425-11	s CARBON 4.7k 5% 1/4W
R20	1-249-425-11	s CARBON 4.7k 5% 1/4W
R21	1-249-425-11	s CARBON 4.7k 5% 1/4W
R22	1-249-425-11	s CARBON 4.7k 5% 1/4W
R23	1-249-425-11	s CARBON 4.7k 5% 1/4W
R24	1-249-425-11	s CARBON 4.7k 5% 1/4W
R25	1-249-425-11	s CARBON 4.7k 5% 1/4W
R26	1-249-425-11	s CARBON 4.7k 5% 1/4W
R27	1-249-425-11	s CARBON 4.7k 5% 1/4W

(DLP-10 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
R28	1-249-425-11	s CARBON 4.7k 5% 1/4W
R29	1-249-425-11	s CARBON 4.7k 5% 1/4W
R30	1-249-425-11	s CARBON 4.7k 5% 1/4W
R31	1-249-425-11	s CARBON 4.7k 5% 1/4W
R32	1-249-425-11	s CARBON 4.7k 5% 1/4W
R33	1-249-425-11	s CARBON 4.7k 5% 1/4W
R34	1-249-425-11	s CARBON 4.7k 5% 1/4W
R35	1-249-425-11	s CARBON 4.7k 5% 1/4W
R36	1-249-425-11	s CARBON 4.7k 5% 1/4W
R37	1-249-425-11	s CARBON 4.7k 5% 1/4W
R38	1-249-425-11	s CARBON 4.7k 5% 1/4W
R39	1-249-425-11	s CARBON 4.7k 5% 1/4W
R40	1-249-425-11	s CARBON 4.7k 5% 1/4W
R41	1-249-425-11	s CARBON 4.7k 5% 1/4W
R42	1-249-425-11	s CARBON 4.7k 5% 1/4W
R43	1-249-425-11	s CARBON 4.7k 5% 1/4W
R44	1-249-425-11	s CARBON 4.7k 5% 1/4W
R45	1-249-425-11	s CARBON 4.7k 5% 1/4W
R46	1-249-425-11	s CARBON 4.7k 5% 1/4W
R47	1-249-425-11	s CARBON 4.7k 5% 1/4W
R48	1-249-425-11	s CARBON 4.7k 5% 1/4W
R49	1-249-425-11	s CARBON 4.7k 5% 1/4W
R50	1-249-425-11	s CARBON 4.7k 5% 1/4W
R51	1-249-425-11	s CARBON 4.7k 5% 1/4W
R52	1-249-425-11	s CARBON 4.7k 5% 1/4W
S1	1-570-727-11	s SWITCH, DIP
S2	1-570-727-11	s SWITCH, DIP
S3	1-570-727-11	s SWITCH, DIP
S4	1-572-594-11	s SWITCH, DIP
S5	1-570-728-11	s SWITCH, DIP
S6	1-570-728-11	s SWITCH, DIP

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

DPR-16 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-6259-461-A	o MOUNTED CIRCUIT BOARD, DPR-16
1pc	1-526-654-00	s SOCKET, IC (DP) 16P
1pc	1-526-656-00	s SOCKET, IC (DP) 20P
7pcs	1-526-816-21	o SOCKET, IC (DP) 24P
2pcs	3-166-184-01	o LEVER, PC BOARD
6pcs	7-621-773-87	s SCREW +B 2.6X10
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
8pcs	7-682-948-01	s SCREW +PSW 3X8
C1	1-124-589-11	s ELECT 47uF 20% 16V
CN1	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN3	1-506-748-11	s CONNECTOR, DIN 96P, MALE
COP1	1-563-859-11	s PLUG, SHORTING
COP2	1-563-859-11	s PLUG, SHORTING
COP3	1-563-859-11	s PLUG, SHORTING
COP4	1-563-859-11	s PLUG, SHORTING
COP5	1-563-859-11	s PLUG, SHORTING
COP6	1-563-859-11	s PLUG, SHORTING
COP7	1-563-859-11	s PLUG, SHORTING
COP8	1-563-859-11	s PLUG, SHORTING
COP9	1-563-859-11	s PLUG, SHORTING
COP10	1-563-859-11	s PLUG, SHORTING
COP11	1-563-859-11	s PLUG, SHORTING
COR1	1-566-388-11	s CONNECTOR, 8P, MALE
COR2	1-566-388-11	s CONNECTOR, 8P, MALE
COR3	1-565-396-11	o PIN, CONNECTOR 10P
COR4	1-565-397-11	o CONNECTOR, 14P, MALE
F1	▲1-576-031-11	s FUSE, MICRO
F2	▲1-576-031-11	s FUSE, MICRO
ICA3	8-759-515-11	s IC SN74ALS574BN
ICA4	8-759-515-11	s IC SN74ALS574BN
ICA6	8-759-990-97	s IC CXD8156Q
ICA8	8-759-719-16	s IC EPM5016-H24191BV1
ICA9	8-759-320-87	s IC HM63021P-28
ICA11	8-759-918-33	s IC CX20160
ICA13	8-759-990-97	s IC CXD8156Q
ICA15	8-759-946-63	s IC SN74ALS541N
ICA16	8-759-946-63	s IC SN74ALS541N
ICA17	8-759-515-11	s IC SN74ALS574BN
ICA18	8-759-946-63	s IC SN74ALS541N
ICA20	8-752-337-41	s IC CXK1206M
ICA23	8-752-337-41	s IC CXK1206M
ICA26	8-759-990-97	s IC CXD8156Q
ICA28	8-759-904-26	s IC SN74ALS08N
ICA29	8-759-904-38	s IC SN74ALS32N
ICA30	8-759-904-36	s IC SN74ALS27N
ICA31	8-759-946-64	s IC SN74ALS04BN
ICA32	8-759-936-54	s IC SN74ALS175N
ICA33	8-752-304-30	s IC CX23043
ICB2	8-759-515-11	s IC SN74ALS574BN
ICB3	8-759-515-11	s IC SN74ALS574BN
ICB4	8-759-515-11	s IC SN74ALS574BN
ICB6	8-759-990-97	s IC CXD8156Q
ICB8	8-759-918-33	s IC CX20160
ICB11	8-759-918-33	s IC CX20160

(DPR-16 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICB13	8-759-990-97	s IC CXD8156Q
ICB15	8-759-946-63	s IC SN74ALS541N
ICB16	8-759-946-63	s IC SN74ALS541N
ICB17	8-759-946-63	s IC SN74ALS541N
ICB18	8-759-917-17	s IC SN74HCT574AN
ICB20	8-752-337-41	s IC CXK1206M
ICB23	8-752-337-41	s IC CXK1206M
ICB25	8-759-918-33	s IC CX20160
ICB26	8-759-918-33	s IC CX20160
ICB27	8-759-918-33	s IC CX20160
ICB28	8-759-918-33	s IC CX20160
ICB29	8-759-904-26	s IC SN74ALS08N
ICB30	8-759-904-38	s IC SN74ALS32N
ICB31	8-759-904-36	s IC SN74ALS27N
ICB32	8-759-946-64	s IC SN74ALS04BN
ICC8	8-759-989-55	s IC SN74ALS244BN
ICC9	8-759-320-87	s IC HM63021P-28
ICC20	8-752-337-41	s IC CXK1206M
ICC23	8-752-337-41	s IC CXK1206M
ICC29	8-759-904-18	s IC SN74ALS00AN
ICC30	8-759-906-71	s IC 74F175PC
ICC31	8-759-946-36	s IC SN74ALS163BN
ICC32	8-759-904-18	s IC SN74ALS00AN
ICC33	8-759-901-64	s IC SN74LS164N
ICD2	8-759-515-11	s IC SN74ALS574BN
ICD3	8-759-936-60	s IC SN74ALS273N
ICD4	8-759-515-11	s IC SN74ALS574BN
ICD6	8-759-990-96	s IC CXD8157Q
ICD11	8-759-515-11	s IC SN74ALS574BN
ICD12	8-759-515-11	s IC SN74ALS574BN
ICD13	8-759-515-11	s IC SN74ALS574BN
ICD14	8-759-515-11	s IC SN74ALS574BN
ICD15	8-759-515-11	s IC SN74ALS574BN
ICD16	8-759-946-63	s IC SN74ALS541N
ICD17	8-759-946-63	s IC SN74ALS541N
ICD18	8-759-917-17	s IC SN74HCT574AN
ICD20	8-752-337-41	s IC CXK1206M
ICD23	8-752-337-41	s IC CXK1206M
ICD26	8-759-990-97	s IC CXD8156Q
ICD28	8-759-904-38	s IC SN74ALS32N
ICD29	8-759-904-26	s IC SN74ALS08N
ICD30	8-759-900-69	s IC SN74ALS74AN
ICD31	8-759-946-64	s IC SN74ALS04BN
ICD32	8-759-901-64	s IC SN74LS164N
ICD33	8-752-304-30	s IC CX23043
ICE2	8-759-917-17	s IC SN74HCT574AN
ICE3	8-759-989-61	s IC SN74ALS564AN
ICE4	8-759-515-11	s IC SN74ALS574BN
ICE6	8-759-906-76	s IC 74F283PC
ICE7	8-759-906-76	s IC 74F283PC
ICE8	8-759-917-06	s IC SN74HC574AN
ICE9	8-759-320-87	s IC HM63021P-28
ICE11	8-759-515-11	s IC SN74ALS574BN
ICE12	8-759-515-11	s IC SN74ALS574BN
ICE13	8-759-515-11	s IC SN74ALS574BN
ICE14	8-759-500-72	s IC SN74ALS157AN
ICE15	8-759-202-84	s IC SN74HC109N
ICE16	8-759-990-97	s IC CXD8156Q

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DPR-16 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICE19	8-759-706-31 s	IC MB7112-DPR16E19V1
ICE25	8-752-322-06 s	IC CXK5814P-35
ICE26	8-752-322-06 s	IC CXK5814P-35
ICE27	8-759-990-16 s	IC AM29C827PC
ICE28	8-759-506-57 s	IC CXD8214P
ICE29	8-759-990-16 s	IC AM29C827PC
ICE30	8-759-506-57 s	IC CXD8214P
ICE31	8-759-500-72 s	IC SN74ALS157AN
ICE32	8-759-500-72 s	IC SN74ALS157AN
ICE33	8-759-515-11 s	IC SN74ALS574BN
ICE34	8-759-948-28 s	IC SM5828P
ICF1	8-759-904-83 s	IC 74F32PC
ICF2	8-759-904-77 s	IC AM26LS32ACN
ICF3	8-759-901-44 s	IC 74F240PC
ICF4	8-759-916-66 s	IC SN74HCT240N
ICF5	8-759-912-30 s	IC SN74ALS640AN
ICF6	8-759-906-76 s	IC 74F283PC
ICF7	8-759-906-76 s	IC 74F283PC
ICF8	8-759-916-54 s	IC SN74HC174N
ICF9	8-759-916-54 s	IC SN74HC174N
ICF10	8-759-901-44 s	IC 74F240PC
ICF11	8-759-515-11 s	IC SN74ALS574BN
ICF12	8-759-515-11 s	IC SN74ALS574BN
ICF13	8-759-515-11 s	IC SN74ALS574BN
ICF14	8-759-500-72 s	IC SN74ALS157AN
ICF15	8-759-726-81 s	IC PEEL18CV8-CNT5V1
ICF20	8-759-901-44 s	IC 74F240PC
ICF21	8-759-917-06 s	IC SN74HC574AN
ICF22	8-759-917-06 s	IC SN74HC574AN
ICF23	8-759-912-36 s	IC SN74ALS645AN
ICF24	8-759-912-36 s	IC SN74ALS645AN
ICF31	8-759-916-01 s	IC SN74ALS153N
ICF32	8-759-916-01 s	IC SN74ALS153N
ICG2	8-759-916-66 s	IC SN74HCT240N
ICG3	8-759-515-11 s	IC SN74ALS574BN
ICG4	8-759-515-11 s	IC SN74ALS574BN
ICG5	8-759-515-11 s	IC SN74ALS574BN
ICG19	8-759-500-72 s	IC SN74ALS157AN
ICG20	8-759-912-05 s	IC SN74ALS161BN
ICG21	8-759-917-06 s	IC SN74HC574AN
ICG22	8-759-917-06 s	IC SN74HC574AN
ICG23	8-759-912-36 s	IC SN74ALS645AN
ICG24	8-759-912-36 s	IC SN74ALS645AN
ICG25	8-752-322-06 s	IC CXK5814P-35
ICG26	8-752-322-06 s	IC CXK5814P-35
ICG27	8-759-990-16 s	IC AM29C827PC
ICG28	8-759-506-57 s	IC CXD8214P
ICG29	8-759-990-16 s	IC AM29C827PC
ICG30	8-759-506-57 s	IC CXD8214P
ICG31	8-759-006-22 s	IC SN74LS283N
ICG32	8-759-901-64 s	IC SN74LS164N
ICG33	8-759-948-28 s	IC SM5828P
ICH1	8-759-916-66 s	IC SN74HCT240N
ICH2	8-759-916-66 s	IC SN74HCT240N
ICH3	8-759-515-11 s	IC SN74ALS574BN
ICH4	8-759-515-11 s	IC SN74ALS574BN
ICH5	8-759-918-33 s	IC CX20160

(DPR-16 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICH7	8-759-990-96 s	IC CXD8157Q
ICH9	8-759-990-96 s	IC CXD8157Q
ICH13	8-759-990-97 s	IC CXD8156Q
ICH16	8-752-337-41 s	IC CXK1206M
ICH18	8-752-337-41 s	IC CXK1206M
ICH20	8-759-515-11 s	IC SN74ALS574BN
ICH21	8-759-500-72 s	IC SN74ALS157AN
ICH22	8-759-500-72 s	IC SN74ALS157AN
ICH24	8-752-337-41 s	IC CXK1206M
ICH27	8-752-337-41 s	IC CXK1206M
ICH29	8-759-918-33 s	IC CX20160
ICH30	8-759-918-33 s	IC CX20160
ICH31	8-759-946-64 s	IC SN74ALS04BN
ICH32	8-752-304-30 s	IC CX23043
ICH33	8-752-304-30 s	IC CX23043
ICJ6	8-759-081-37 o	IC PALC22V10-DPR16J6V2
ICJ7	8-759-918-33 s	IC CX20160
ICJ8	8-759-912-12 s	IC SN74ALS240AN
ICJ9	8-759-917-17 s	IC SN74HCT574AN
ICJ10	8-759-515-11 s	IC SN74ALS574BN
ICJ11	8-759-917-06 s	IC SN74HC574N
ICJ12	8-759-917-06 s	IC SN74HC574N
ICJ13	8-759-506-57 s	IC CXD8214P
ICJ15	8-752-337-41 s	IC CXK1206M
ICJ18	8-752-337-41 s	IC CXK1206M
ICJ20	8-759-989-55 s	IC SN74ALS244BN
ICJ21	8-759-500-72 s	IC SN74ALS157AN
ICJ22	8-759-500-72 s	IC SN74ALS157AN
ICK1	8-759-916-42 s	IC SN74HC133N
ICK2	8-759-916-66 s	IC SN74HCT240N
ICK3	8-759-515-11 s	IC SN74ALS574BN
ICK4	8-759-918-33 s	IC CX20160
ICK5	8-759-916-66 s	IC SN74HCT240N
ICK7	8-759-990-97 s	IC CXD8156Q
ICK9	8-759-990-97 s	IC CXD8156Q
ICK12	8-759-917-06 s	IC SN74HC574N
ICK13	8-759-917-06 s	IC SN74HC574N
ICK14	8-759-917-06 s	IC SN74HC574N
ICK15	8-759-917-06 s	IC SN74HC574N
ICK16	8-759-918-33 s	IC CX20160
ICK17	8-759-918-33 s	IC CX20160
ICK18	8-759-515-11 s	IC SN74ALS574BN
ICK19	8-759-515-11 s	IC SN74ALS574BN
ICK20	8-759-912-12 s	IC SN74ALS240AN
ICK21	8-759-917-06 s	IC SN74HC574N
ICK22	8-759-916-29 s	IC SN74HC74N
ICK24	8-752-337-41 s	IC CXK1206M
ICK27	8-752-337-41 s	IC CXK1206M
ICK30	8-759-990-97 s	IC CXD8156Q
ICK32	8-759-515-11 s	IC SN74ALS574BN
ICK33	8-752-304-30 s	IC CX23043
ICL1	8-759-916-42 s	IC SN74HC133N
ICL2	8-759-916-42 s	IC SN74HC133N
ICL3	8-759-916-18 s	IC SN74HC10N
ICL4	8-759-078-06 o	IC PALC22V10-DPR16L4V1
ICL5	8-759-917-43 s	IC SN74HC138N
ICL22	8-759-904-26 s	IC SN74ALS08N
ICL32	8-759-705-85 s	IC WS57C291B-DPR16L32V1

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DPR-16 BOARD)

DPR-17 BOARD

Ref. No. or Q'ty	Part No.	SP Description
ICL33	8-759-706-25 s	IC AT27HC642-DPR16L33V1
ICM1	8-759-916-14 s	IC SN74HC04AN
ICM3	8-759-904-38 s	IC SN74ALS32N
ICM5	8-759-917-43 s	IC SN74HC138N
ICM7	8-759-990-97 s	IC CXD8156Q
ICM9	8-759-990-97 s	IC CXD8156Q
ICM12	8-759-917-06 s	IC SN74HC574N
ICM13	8-759-917-06 s	IC SN74HC574N
ICM14	8-759-918-33 s	IC CX20160
ICM15	8-759-918-33 s	IC CX20160
ICM16	8-759-045-55 s	IC WS57C291B-DPR16M16V2
ICM17	8-759-045-56 s	IC WS57C291B-DPR16M17V2
ICM19	8-759-990-96 s	IC CXD8157Q
ICM21	8-759-989-55 s	IC SN74ALS244BN
ICM22	8-759-936-54 s	IC SN74ALS175N
ICM23	8-759-917-06 s	IC SN74HC574N
ICM24	8-759-506-57 s	IC CXD8214P
ICM25	8-752-304-30 s	IC CX23043
ICM26	8-759-506-57 s	IC CXD8214P
ICM27	8-752-304-30 s	IC CX23043
ICM29	8-759-506-57 s	IC CXD8214P
ICM30	8-759-506-57 s	IC CXD8214P
ICM31	8-759-506-57 s	IC CXD8214P
ICM32	8-759-705-84 s	IC WS57C291B-DPR16M32V1
RB1	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB2	1-231-399-00 s	RESISTOR BLOCK 330x8
RB3	1-231-399-00 s	RESISTOR BLOCK 330x8
RB4	1-231-525-00 s	RESISTOR BLOCK 4.7kx4
RB5	1-231-525-00 s	RESISTOR BLOCK 4.7kx4
RB6	1-231-525-00 s	RESISTOR BLOCK 4.7kx4
RB7	1-231-525-00 s	RESISTOR BLOCK 4.7kx4
RB8	1-231-525-00 s	RESISTOR BLOCK 4.7kx4
RB9	1-231-525-00 s	RESISTOR BLOCK 4.7kx4
RB10	1-231-525-00 s	RESISTOR BLOCK 4.7kx4
RB11	1-231-525-00 s	RESISTOR BLOCK 4.7kx4
RB12	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB13	1-231-525-00 s	RESISTOR BLOCK 4.7kx4
RB14	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB15	1-231-405-00 s	RESISTOR BLOCK 1k
RB16	1-231-385-00 s	RESISTOR BLOCK 4.7kx8
RB17	1-231-525-00 s	RESISTOR BLOCK 4.7kx4
S1	1-554-027-00 s	SWITCH, DIGITAL
S2	1-554-027-00 s	SWITCH, DIGITAL
S3	1-554-027-00 s	SWITCH, DIGITAL
S4	1-554-027-00 s	SWITCH, DIGITAL
S5	1-554-027-00 s	SWITCH, DIGITAL
S6	1-554-027-00 s	SWITCH, DIGITAL
S7	1-570-598-11 s	SWITCH, DIP 4-CKT
S8	1-554-027-00 s	SWITCH, DIGITAL
S9	1-554-027-00 s	SWITCH, DIGITAL
S10	1-554-027-00 s	SWITCH, DIGITAL
S11	1-554-027-00 s	SWITCH, DIGITAL
S12	1-554-027-00 s	SWITCH, DIGITAL
S13	1-554-027-00 s	SWITCH, DIGITAL

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-6259-457-A o	MOUNTED CIRCUIT BOARD, DPR-17
3pcs	1-526-816-21 o	SOCKET, IC (DP) 24P
2pcs	3-166-184-01 o	LEVER, PC BOARD
6pcs	7-621-773-87 s	SCREW +B 2.6X10
2pcs	7-622-207-05 s	N 2.6, TYPE 2
2pcs	7-626-320-11 s	PIN, SPRING 3X8
8pcs	7-682-948-01 s	SCREW +PSW 3X8
C1	1-124-589-11 s	ELECT 47uF 20% 16V
C97	1-162-294-31 s	CERAMIC 0.001uF 10% 50V
CN1	1-506-748-11 s	CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11 s	CONNECTOR, DIN 96P, MALE
CN3	1-506-748-11 s	CONNECTOR, DIN 96P, MALE
COP1	1-563-859-11 s	PLUG, SHORTING
COP2	1-563-859-11 s	PLUG, SHORTING
COP3	1-563-859-11 s	PLUG, SHORTING
COR1	1-566-388-11 s	CONNECTOR, 8P, MALE
COR2	1-566-388-11 s	CONNECTOR, 8P, MALE
COR3	1-566-388-11 s	CONNECTOR, 8P, MALE
DL1	1-415-167-00 s	DELAY LINE
F1	▲1-576-031-11 s	FUSE, MICRO
F2	▲1-576-031-11 s	FUSE, MICRO
ICA1	8-759-506-57 s	IC CXD8214P
ICA2	8-759-913-63 s	IC SN74ALS374N
ICA3	8-759-913-63 s	IC SN74ALS374N
ICA4	8-759-921-69 s	IC SN74HC688N
ICA5	8-759-921-69 s	IC SN74HC688N
ICA6	8-759-917-43 s	IC SN74HC138N
ICA7	8-759-913-63 s	IC SN74ALS374N
ICA8	8-759-913-63 s	IC SN74ALS374N
ICA9	8-759-918-33 s	IC CX20160
ICB1	8-759-916-66 s	IC SN74HCT240N
ICB2	8-759-916-66 s	IC SN74HCT240N
ICB3	8-759-902-44 s	IC SN74LS244N
ICB4	8-759-902-44 s	IC SN74LS244N
ICB5	8-759-902-44 s	IC SN74LS244N
ICB6	8-759-946-36 s	IC SN74ALS163BN
ICB7	8-759-946-36 s	IC SN74ALS163BN
ICB8	8-759-006-22 s	IC SN74LS283N
ICB9	8-759-912-03 s	IC SN74ALS138N
ICB10	8-759-904-87 s	IC 74F374PC
ICB11	8-759-506-57 s	IC CXD8214P
ICB12	8-759-990-16 s	IC AM29C827PC
ICB13	8-759-506-57 s	IC CXD8214P
ICB14	8-759-990-16 s	IC AM29C827PC
ICB16	8-759-906-78 s	IC 74F399PC
ICB17	8-759-904-87 s	IC 74F374PC
ICB18	8-759-506-45 s	IC CY7C194-35PC
ICB19	8-759-506-45 s	IC CY7C194-35PC
ICC1	8-759-906-78 s	IC 74F399PC
ICC2	8-759-906-78 s	IC 74F399PC
ICC3	8-759-906-78 s	IC 74F399PC
ICC4	8-759-906-78 s	IC 74F399PC
ICC5	8-759-906-78 s	IC 74F399PC
ICC6	8-759-906-78 s	IC 74F399PC
ICC7	8-759-906-78 s	IC 74F399PC

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DPR-17 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICC8	8-759-915-41	s IC 74F02PC
ICC10	8-759-938-94	s IC 74F158APC
ICC11	8-752-304-30	s IC CX23043
ICC12	8-752-304-30	s IC CX23043
ICC13	8-752-304-30	s IC CX23043
ICC14	8-752-304-30	s IC CX23043
ICC16	8-759-906-78	s IC 74F399PC
ICC17	8-759-912-03	s IC SN74ALS138N
ICC18	8-759-506-45	s IC CY7C194-35PC
ICC19	8-759-506-45	s IC CY7C194-35PC
ICD1	8-759-904-77	s IC AM26LS32ACN
ICD2	8-759-904-87	s IC 74F374PC
ICD3	8-759-904-80	s IC 74F04PC
ICD4	8-759-906-78	s IC 74F399PC
ICD5	8-759-906-78	s IC 74F399PC
ICD6	8-759-906-78	s IC 74F399PC
ICD7	8-759-906-78	s IC 74F399PC
ICD8	8-759-904-79	s IC 74F00PC
ICD9	8-759-904-80	s IC 74F04PC
ICD10	8-759-915-93	s IC 74F163APC
ICD11	8-759-506-57	s IC CXD8214P
ICD12	8-759-076-24	o IC WS57C291B-DPR17D12V3
ICD13	8-759-506-57	s IC CXD8214P
ICD14	8-759-054-10	s IC WS57C291B-DPR17D14V2
ICD15	8-759-904-80	s IC 74F04PC
ICD16	8-759-906-78	s IC 74F399PC
ICD17	8-759-904-87	s IC 74F374PC
ICD18	8-759-506-45	s IC CY7C194-35PC
ICE1	8-759-906-78	s IC 74F399PC
ICE2	8-759-906-78	s IC 74F399PC
ICE3	8-759-906-78	s IC 74F399PC
ICE4	8-759-906-78	s IC 74F399PC
ICE5	8-759-906-78	s IC 74F399PC
ICE6	8-759-906-78	s IC 74F399PC
ICE7	8-759-906-78	s IC 74F399PC
ICE8	8-759-904-79	s IC 74F00PC
ICE9	8-759-904-83	s IC 74F32PC
ICE12	8-759-916-96	s IC SN74HC374N
ICE15	8-759-906-78	s IC 74F399PC
ICE16	8-759-906-78	s IC 74F399PC
ICE17	8-759-904-87	s IC 74F374PC
ICE18	8-759-912-48	s IC SN74ALS874NT
ICE19	8-759-912-48	s IC SN74ALS874NT
ICF1	8-759-906-78	s IC 74F399PC
ICF2	8-759-906-78	s IC 74F399PC
ICF3	8-759-906-78	s IC 74F399PC
ICF4	8-759-906-78	s IC 74F399PC
ICF5	8-759-916-25	s IC SN74HC32N
ICF6	8-759-904-79	s IC 74F00PC
ICF7	8-759-904-84	s IC 74F74PC
ICF8	8-759-946-64	s IC SN74ALS04BN
ICF9	8-759-916-14	s IC SN74HC04N
ICF10	8-759-906-66	s IC 74F86PC
ICF12	8-759-803-70	s IC SN74HC08N
ICF13	8-759-901-64	s IC SN74LS164N
ICF16	8-759-906-78	s IC 74F399PC
ICF17	8-759-904-87	s IC 74F374PC
ICF18	8-759-506-45	s IC CY7C194-35PC

(DPR-17 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICF19	8-759-506-45	s IC CY7C194-35PC
ICG1	8-759-906-78	s IC 74F399PC
ICG2	8-759-906-78	s IC 74F399PC
ICG3	8-759-906-78	s IC 74F399PC
ICG4	8-759-906-78	s IC 74F399PC
ICG5	8-759-906-78	s IC 74F399PC
ICG6	8-759-906-78	s IC 74F399PC
ICG7	8-759-906-78	s IC 74F399PC
ICG8	8-759-906-76	s IC 74F283PC
ICG9	8-759-906-76	s IC 74F283PC
ICG10	8-759-906-76	s IC 74F283PC
ICG11	8-759-906-76	s IC 74F283PC
ICG12	8-759-906-76	s IC 74F283PC
ICG13	8-759-906-78	s IC 74F399PC
ICG14	8-759-906-78	s IC 74F399PC
ICG16	8-759-906-78	s IC 74F399PC
ICG17	8-759-912-03	s IC SN74ALS138N
ICG18	8-759-506-45	s IC CY7C194-35PC
ICG19	8-759-506-45	s IC CY7C194-35PC
ICH1	8-759-906-78	s IC 74F399PC
ICH2	8-759-906-78	s IC 74F399PC
ICH3	8-759-906-78	s IC 74F399PC
ICH4	8-759-906-78	s IC 74F399PC
ICH5	8-759-506-57	s IC CXD8214P
ICH6	8-759-904-81	s IC 74F08PC
ICH7	8-759-906-76	s IC 74F283PC
ICH8	8-759-906-76	s IC 74F283PC
ICH9	8-759-904-87	s IC 74F374PC
ICH10	8-759-912-03	s IC SN74ALS138N
ICH11	8-759-904-87	s IC 74F374PC
ICH12	8-759-904-87	s IC 74F374PC
ICH13	8-759-906-78	s IC 74F399PC
ICH14	8-759-906-78	s IC 74F399PC
ICH15	8-759-906-78	s IC 74F399PC
ICH16	8-759-906-78	s IC 74F399PC
ICH17	8-759-904-87	s IC 74F374PC
ICH18	8-759-506-45	s IC CY7C194-35PC
ICJ1	8-759-913-63	s IC SN74ALS374N
ICJ2	8-759-904-87	s IC 74F374PC
ICJ3	8-759-916-01	s IC SN74ALS153N
ICJ4	8-759-916-01	s IC SN74ALS153N
ICJ5	8-759-913-63	s IC SN74ALS374N
ICJ6	8-759-912-48	s IC SN74ALS874NT
ICJ7	8-759-912-48	s IC SN74ALS874NT
ICJ8	8-759-506-57	s IC CXD8214P
ICJ9	8-759-506-45	s IC CY7C194-35PC
ICJ10	8-759-506-45	s IC CY7C194-35PC
ICJ12	8-759-506-45	s IC CY7C194-35PC
ICJ13	8-759-506-45	s IC CY7C194-35PC
ICJ14	8-759-506-45	s IC CY7C194-35PC
ICJ15	8-759-906-78	s IC 74F399PC
ICJ16	8-759-906-78	s IC 74F399PC
ICJ17	8-759-904-87	s IC 74F374PC
ICJ18	8-759-912-48	s IC SN74ALS874NT
ICJ19	8-759-912-48	s IC SN74ALS874NT
ICJ20	8-759-706-26	s IC AT27HC642-DPR17J20V1
R3	1-215-397-00	s METAL 100 1 $\frac{1}{2}$ 1/6W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DPR-17 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
RB1	1-231-410-00	s RESISTOR BLOCK 10kx8
RB2	1-231-533-00	s RESISTOR BLOCK 10kx4
RB3	1-231-410-00	s RESISTOR BLOCK 10kx8
RB4	1-231-533-00	s RESISTOR BLOCK 10kx4
S7	1-570-602-11	s SWITCH, DIP 2-CKT

DPR-18 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-6259-456-A	o MOUNTED CIRCUIT BOARD, DPR-18 (SY MODEL)
1pc	A-6259-468-A	o MOUNTED CIRCUIT BOARD, DPR-18(A) (EK MODEL)
2pcs	1-526-659-00	s SOCKET, IC (DP) 28P
4pcs	1-526-816-21	o SOCKET, IC (DP) 24P
2pcs	3-166-184-01	o LEVER, PC BOARD
6pcs	7-621-773-87	s SCREW +B 2.6X10
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
8pcs	7-682-948-01	s SCREW +PSW 3X8
C1	1-124-589-11	s ELECT 47uF 20% 16V
CN1	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN3	1-506-748-11	s CONNECTOR, DIN 96P, MALE
F1	▲1-576-031-11	s FUSE, MICRO
F2	▲1-576-031-11	s FUSE, MICRO
ICA1	8-759-913-63	s IC SN74ALS374N
ICA2	8-759-913-63	s IC SN74ALS374N
ICA3	8-759-900-69	s IC SN74ALS74AN
ICA4	8-759-906-76	s IC 74F283PC
ICA5	8-759-906-76	s IC 74F283PC
ICA7	8-759-990-97	s IC CXD8156Q
ICA9	8-759-942-67	s IC L29C520PC
ICA10	8-759-942-67	s IC L29C520PC
ICA11	8-759-904-81	s IC 74F08PC
ICA12	8-759-946-36	s IC SN74ALS163BN
ICA13	8-759-946-36	s IC SN74ALS163BN
ICA14	8-759-946-36	s IC SN74ALS163BN
ICA15	8-759-942-67	s IC L29C520PC
ICA16	8-759-916-54	s IC SN74HC174N
ICA17	8-759-506-57	s IC CXD8214P
ICA20	8-752-304-30	s IC CX23043
ICA21	8-752-304-30	s IC CX23043
ICA23	8-759-990-97	s IC CXD8156Q
ICB1	8-759-913-63	s IC SN74ALS374N
ICB2	8-759-913-63	s IC SN74ALS374N
ICB3	8-759-904-18	s IC SN74ALS00AN
ICB4	8-759-906-76	s IC 74F283PC
ICB5	8-759-906-76	s IC 74F283PC
ICB9	8-759-916-54	s IC SN74HC174N
ICB10	8-759-916-54	s IC SN74HC174N
ICB11	8-759-001-87	s IC 74F20PC
ICB12	8-759-914-96	s IC N74F85N
ICB13	8-759-914-96	s IC N74F85N
ICB14	8-759-914-96	s IC N74F85N
ICB15	8-759-942-67	s IC L29C520PC
ICB16	8-759-916-54	s IC SN74HC174N
ICB17	8-759-506-57	s IC CXD8214P
ICB19	8-759-916-14	s IC SN74HC04N
ICB20	8-759-918-33	s IC CX20160
ICB21	8-759-917-43	s IC SN74HC138N
ICC1	8-759-913-63	s IC SN74ALS374N
ICC2	8-759-913-63	s IC SN74ALS374N
ICC3	8-759-946-64	s IC SN74ALS04BN
ICC4	8-759-906-76	s IC 74F283PC

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DPR-18 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICC5	8-759-906-76 s	IC 74F283PC
ICC7	8-759-990-97 s	IC CXD8156Q
ICC9	8-759-942-67 s	IC L29C520PC
ICC10	8-759-942-67 s	IC L29C520PC
ICC12	8-759-946-36 s	IC SN74ALS163BN
ICC13	8-759-946-36 s	IC SN74ALS163BN
ICC14	8-759-946-36 s	IC SN74ALS163BN
ICC15	8-759-942-67 s	IC L29C520PC
ICC16	8-759-916-54 s	IC SN74HC174N
ICC17	8-759-904-38 s	IC SN74ALS32N
ICC18	8-759-917-43 s	IC SN74HC138N
ICC19	8-759-917-43 s	IC SN74HC138N
ICC20	8-759-917-43 s	IC SN74HC138N
ICC21	8-759-917-43 s	IC SN74HC138N
ICC22	8-759-916-96 s	IC SN74HC374N
ICC23	8-759-916-96 s	IC SN74HC374N
ICC24	8-759-913-63 s	IC SN74ALS374N
ICC25	8-759-913-63 s	IC SN74ALS374N
ICD1	8-759-904-77 s	IC AM26LS32ACN
ICD2	8-759-916-71 s	IC SN74HC244N
ICD3	8-759-004-91 s	IC MC74HC688N
ICD4	8-759-004-91 s	IC MC74HC688N
ICD5	8-759-904-80 s	IC 74F04PC
ICD9	8-759-916-54 s	IC SN74HC174N
ICD10	8-759-916-54 s	IC SN74HC174N
ICD12	8-759-914-96 s	IC N74F85N
ICD13	8-759-914-96 s	IC N74F85N
ICD14	8-759-914-96 s	IC N74F85N
ICD15	8-759-942-67 s	IC L29C520PC
ICD16	8-759-916-54 s	IC SN74HC174N
ICD17	8-759-803-70 s	IC SN74HC08N
ICD18	8-759-904-80 s	IC 74F04PC
ICD19	8-759-913-63 s	IC SN74ALS374N
ICD20	8-759-002-00 s	IC MC74F153N
ICD21	8-759-906-66 s	IC 74F86PC
ICD22	8-759-506-57 s	IC CXD8214P
ICE1	8-759-916-66 s	IC SN74HCT240N
ICE2	8-759-916-71 s	IC SN74HC244N
ICE3	8-759-913-63 s	IC SN74ALS374N
ICE4	8-759-913-63 s	IC SN74ALS374N
ICE5	8-759-946-64 s	IC SN74ALS04BN
ICE6	8-759-914-96 s	IC N74F85N
ICE7	8-759-916-54 s	IC SN74HC174N
ICE8	8-759-906-66 s	IC 74F86PC
ICE9	8-759-914-96 s	IC N74F85N
ICE10	8-759-914-96 s	IC N74F85N
ICE11	8-759-914-96 s	IC N74F85N
ICE13	8-759-506-57 s	IC CXD8214P
ICE14	8-759-054-13 s	IC CY7C271-DPR18E14CV1
ICE15	8-759-990-16 s	IC AM29C827PC
ICE16	8-759-916-71 s	IC SN74HC244N
ICE17	8-759-913-63 s	IC SN74ALS374N
ICE18	8-759-913-63 s	IC SN74ALS374N
ICE19	8-759-987-11 s	IC SN74ALS575ANT
ICE20	8-759-936-60 s	IC SN74ALS273N
ICE21	8-759-500-72 s	IC SN74ALS157AN
ICF1	8-759-916-66 s	IC SN74HCT240N
ICF2	8-759-916-71 s	IC SN74HC244AN

(DPR-18 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICF3	8-759-913-63 s	IC SN74ALS374N
ICF4	8-759-913-63 s	IC SN74ALS374N
ICF5	8-759-914-96 s	IC N74F85N
ICF6	8-759-914-96 s	IC N74F85N
ICF7	8-759-916-54 s	IC SN74HC174N
ICF8	8-759-904-81 s	IC 74F08PC
ICF11	8-759-990-97 s	IC CXD8156Q
ICF13	8-759-938-44 s	IC SN74ALS688N
ICF14	8-759-054-14 s	IC CY7C271-DPR18F14CV1
ICF16	8-759-916-71 s	IC SN74HC244N
ICF17	8-759-913-63 s	IC SN74ALS374N
ICF18	8-759-913-63 s	IC SN74ALS374N
ICF19	8-759-987-11 s	IC SN74ALS575ANT
ICF20	8-759-936-60 s	IC SN74ALS273N
ICF21	8-759-500-72 s	IC SN74ALS157AN
ICF24	8-759-990-97 s	IC CXD8156Q
ICG1	8-759-506-57 s	IC CXD8214P
ICG2	8-759-937-47 s	IC SN74ALS86N
ICG3	8-759-913-63 s	IC SN74ALS374N
ICG4	8-759-913-63 s	IC SN74ALS374N
ICG5	8-759-916-14 s	IC SN74HC04N
ICG6	8-759-914-96 s	IC N74F85N
ICG7	8-759-916-54 s	IC SN74HC174N
ICG8	8-759-913-63 s	IC SN74ALS374N
ICG9	8-759-914-96 s	IC N74F85N
ICG10	8-759-914-96 s	IC N74F85N
ICG11	8-759-914-96 s	IC N74F85N
ICG13	8-759-506-57 s	IC CXD8214P
ICG14	8-759-041-70 s	IC 27HC642-DPR18G14CV1
ICG15	8-759-990-16 s	IC AM29C827PC
ICG16	8-759-904-79 s	IC 74F00PC
ICG17	8-759-913-63 s	IC SN74ALS374N
ICG18	8-759-913-63 s	IC SN74ALS374N
ICG19	8-759-987-11 s	IC SN74ALS575ANT
ICG20	8-759-936-60 s	IC SN74ALS273N
ICG21	8-759-500-72 s	IC SN74ALS157AN
ICG22	8-752-304-30 s	IC CX23043
ICG24	8-752-304-30 s	IC CX23043
ICG26	8-759-506-57 s	IC CXD8214P
ICH0	8-759-913-63 s	IC SN74ALS374N
ICH1	8-759-506-57 s	IC CXD8214P
ICH2	8-759-937-47 s	IC SN74ALS86N
ICH3	8-759-913-63 s	IC SN74ALS374N
ICH4	8-759-913-63 s	IC SN74ALS374N
ICH5	8-759-914-96 s	IC N74F85N
ICH6	8-759-914-96 s	IC N74F85N
ICH7	8-759-916-54 s	IC SN74HC174N
ICH8	8-759-948-28 s	IC SM5828P
ICH11	8-759-990-97 s	IC CXD8156Q
ICH13	8-759-938-44 s	IC SN74ALS688N
ICH14	8-759-041-71 s	IC 27HC642-DPR18H14CV1
ICH15	8-759-921-08 s	IC SN74HC02N
ICH16	8-759-904-80 s	IC 74F04PC
ICH17	8-759-913-63 s	IC SN74ALS374N
ICH18	8-759-913-63 s	IC SN74ALS374N
ICH19	8-759-987-11 s	IC SN74ALS575ANT
ICH20	8-759-936-60 s	IC SN74ALS273N
ICH21	8-759-916-54 s	IC SN74HC174N

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DPR-18 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICH22	8-759-916-79 s	IC SN74HC273N
ICH23	8-759-916-96 s	IC SN74HC374N
ICH24	8-759-916-54 s	IC SN74HC174N
ICH26	8-759-948-28 s	IC SM5828P
RB1	1-231-533-00 s	RESISTOR BLOCK 10kx4
S1,2	1-570-602-11 s	SWITCH, DIP 2-CKT

DPR-42 BOARD

Ref. No. or Q'ty	Part No.	SP Description
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This board includes FMY-10 board.

1pc	A-8271-397-A o	MOUNTED CIRCUIT BOARD, DPR-42
1pc	X-3165-223-1 o	PLATE ASSY, SHIELD
9pcs	1-526-656-00 o	SOCKET, IC (DIL) 20P (for ICA1, ICB1,31, ICC1, ICF5,6,10,11, and ICJ5)
18pcs	1-526-816-21 o	SOCKET, IC (DIL) 24P (for ICA19,22,25,27,30, ICC6,21,30, ICD27, ICE28, ICF7,17, ICG3,4,8, ICG12, ICH3, and ICH5)
2pcs	1-540-187-21 o	SOCKET, IC (DIL) 28P (for ICF15 and ICF16)
2pcs	3-166-184-01 o	LEVER, PC BOARD
2pcs	3-166-185-01 s	NUT, PLATE
2pcs	3-674-639-01 s	SUPPORT (L=8)
4pcs	7-621-773-87 s	SCREW +B 2.6x10
2pcs	7-626-320-11 s	PIN, SPRING 3x8
8pcs	7-682-948-01 s	SCREW +PSW 3x8
2pcs	7-685-546-14 s	SCREW +BTP 3x8 TYPE2 N-S
C1	1-124-589-11 s	ELECT 47uF 20% 16V
CN1	1-506-748-11 o	CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11 o	CONNECTOR, DIN 96P, MALE
CN3	1-506-748-11 o	CONNECTOR, DIN 96P, MALE
CN4	1-526-656-00 o	SOCKET, IC (DIL) 20P
COP1	1-563-859-11 s	PLUG, SHORTING
COR1	1-566-388-11 s	PIN, SHORTING 8P (used 4P, cut 4P off)
F1	▲1-576-031-11 s	FUSE 125V 10A
F2	▲1-576-031-11 s	FUSE 125V 10A
ICA2	8-759-515-11 s	IC SN74ALS574BN
ICA3	8-759-515-11 s	IC SN74ALS574BN
ICA4	8-759-515-11 s	IC SN74ALS574BN
ICA5	8-759-916-71 s	IC SN74HC244AN
ICA6	8-759-916-71 s	IC SN74HC244AN
ICA7	8-752-322-06 s	IC CXK5814P-35
ICA8	8-752-322-06 s	IC CXK5814P-35
ICA9	8-759-921-34 s	IC SN74HC245AN
ICA10	8-759-921-34 s	IC SN74HC245AN
ICA11	8-759-515-11 s	IC SN74ALS574BN
ICA12	8-759-515-11 s	IC SN74ALS574BN
ICA13	8-759-719-15 s	IC PEEL18CV8P-SAM001V1, PLD
ICA14	8-759-515-11 s	IC SN74ALS574BN
ICA15	8-759-147-02 s	IC UPD42101C-3
ICA16	8-759-147-02 s	IC UPD42101C-3
ICA17	8-759-918-33 s	IC CX20160
ICA18	8-759-506-57 s	IC CXD8214P
ICA19	8-759-706-02 s	IC WS57C291B-DPR15A19V1, EPROM
ICA20	8-759-515-11 s	IC SN74ALS574BN
ICA21	8-759-506-57 s	IC CXD8214P
ICA22	8-759-706-01 s	IC WS57C291B-DPR15A22V1, EPROM
ICA23	8-759-515-11 s	IC SN74ALS574BN
ICA24	8-759-506-57 s	IC CXD8214P
ICA25	8-759-706-05 s	IC WS57C291B-DPR15A25V1, EPROM
ICA26	8-759-515-11 s	IC SN74ALS574BN

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DPR-42 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICA27	8-759-706-03 s IC	WS57C291B-DPR15A27V1, EPROM
ICA28	8-759-515-11 s IC	SN74ALS574BN
ICA29	8-759-506-57 s IC	CXD8214P
ICA30	8-759-706-04 s IC	WS57C291B-DPR15A30V1, EPROM
ICA31	8-759-515-11 s IC	SN74ALS574BN
ICB2	8-759-515-11 s IC	SN74ALS574BN
ICB3	8-759-506-57 s IC	CXD8214P
ICB4	8-759-506-57 s IC	CXD8214P
ICB5	8-759-515-14 s IC	AM29C827APC
ICB6	8-759-515-14 s IC	AM29C827APC
ICB7	8-752-322-06 s IC	CXK5814P-35
ICB8	8-752-322-06 s IC	CXK5814P-35
ICB9	8-759-921-34 s IC	SN74HC245AN
ICB10	8-759-921-34 s IC	SN74HC245AN
ICB11	8-759-515-11 s IC	SN74ALS574BN
ICB12	8-759-515-11 s IC	SN74ALS574BN
ICB13	8-759-719-15 s IC	PEEL18CV8P-SAM001V1, PLD
ICB14	8-759-515-11 s IC	SN74ALS574BN
ICB15	8-759-147-02 s IC	UPD42101C-3
ICB16	8-759-147-02 s IC	UPD42101C-3
ICB17	8-759-918-33 s IC	CX20160
ICB18	8-759-917-87 s IC	74F382PC
ICB19	8-759-917-87 s IC	74F382PC
ICB20	8-759-515-11 s IC	SN74ALS574BN
ICB21	8-759-917-87 s IC	74F382PC
ICB22	8-759-917-87 s IC	74F382PC
ICB23	8-759-901-44 s IC	74F240PC
ICB24	8-759-917-87 s IC	74F382PC
ICB25	8-759-917-87 s IC	74F382PC
ICB26	8-759-917-87 s IC	74F382PC
ICB27	8-759-506-57 s IC	CXD8214P
ICB28	8-759-515-11 s IC	SN74ALS574BN
ICB29	8-759-917-87 s IC	74F382PC
ICB30	8-759-917-87 s IC	74F382PC
ICB31	8-759-073-04 s IC	18CV8-COUNT5V1, PLD
ICB32	8-759-946-64 s IC	SN74ALS04BN
ICB9A	8-759-904-26 s IC	SN74ALS08N
ICB10A	8-759-904-38 s IC	SN74ALS32N
ICB11A	8-759-904-36 s IC	SN74ALS27N
ICB12A	8-759-916-14 s IC	SN74HC04AN
ICC2	8-759-515-11 s IC	SN74ALS574BN
ICC3	8-759-936-60 s IC	SN74ALS273N
ICC4	8-759-918-33 s IC	CX20160
ICC5	8-759-917-17 s IC	SN74HCT574AN
ICC6	8-759-073-01 s IC	PALC22V10-BORDCNTV1, PLD
ICC7	8-759-904-81 s IC	74F08PC
ICC8	8-759-515-11 s IC	SN74ALS574BN
ICC9	8-759-904-26 s IC	SN74ALS08N
ICC10	8-759-946-64 s IC	SN74ALS04BN
ICC11	8-759-904-36 s IC	SN74ALS27N
ICC12	8-759-904-18 s IC	SN74ALS00AN
ICC13	8-759-506-57 s IC	CXD8214P
ICC14	8-759-506-57 s IC	CXD8214P
ICC15	8-759-515-11 s IC	SN74ALS574BN
ICC16	8-759-515-11 s IC	SN74ALS574BN
ICC17	8-759-917-87 s IC	74F382PC
ICC18	8-759-917-87 s IC	74F382PC
ICC19	8-759-515-11 s IC	SN74ALS574BN
ICC20	8-759-506-57 s IC	CXD8214P

(DPR-42 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICC21	8-759-706-00 s IC	WS57C291B-DPR15C21V1, EPROM
ICC22	8-759-515-11 s IC	SN74ALS574BN
ICC23	8-759-515-11 s IC	SN74ALS574BN
ICC24	8-759-515-11 s IC	SN74ALS574BN
ICC25	8-759-515-11 s IC	SN74ALS574BN
ICC26	8-759-917-87 s IC	74F382PC
ICC27	8-759-906-76 s IC	74F283PC
ICC28	8-759-906-76 s IC	74F283PC
ICC29	8-759-515-11 s IC	SN74ALS574BN
ICC30	8-759-706-07 s IC	WS57C291B-DPR15C30V1, EPROM
ICC31	8-759-506-57 s IC	CXD8214P
ICD1	8-759-926-32 s IC	AM26LS32PC
ICD2	8-759-901-44 s IC	74F240PC
ICD3	8-759-900-69 s IC	SN74ALS74AN
ICD4	8-759-900-69 s IC	SN74ALS74AN
ICD5	8-759-900-69 s IC	SN74ALS74AN
ICD6	8-759-515-11 s IC	SN74ALS574BN
ICD7	8-759-916-66 s IC	SN74HCT240AN
ICD8	8-759-901-44 s IC	74F240PC
ICD9	8-759-906-71 s IC	74F175PC
ICD10	8-759-917-06 s IC	SN74HC574AN
ICD11	8-759-917-06 s IC	SN74HC574AN
ICD12	8-759-917-06 s IC	SN74HC574AN
ICD13	8-759-917-06 s IC	SN74HC574AN
ICD14	8-759-917-06 s IC	SN74HC574AN
ICD15	8-759-900-69 s IC	SN74ALS74AN
ICD16	8-759-906-76 s IC	74F283PC
ICD17	8-759-906-76 s IC	74F283PC
ICD19	8-752-340-75 s IC	CXK1206AM
ICD22	8-752-340-75 s IC	CXK1206AM
ICD24	8-752-340-75 s IC	CXK1206AM
ICD26	8-759-506-57 s IC	CXD8214P
ICD27	8-759-706-06 s IC	WS57C291B-DPR15D27V1, EPROM
ICD28	8-759-515-11 s IC	SN74ALS574BN
ICD29	8-759-515-11 s IC	SN74ALS574BN
ICD30	8-759-917-87 s IC	74F382PC
ICD31	8-759-917-87 s IC	74F382PC
ICE1	8-759-916-66 s IC	SN74HCT240AN
ICE2	8-759-912-30 s IC	SN74ALS640AN
ICE3	8-759-916-66 s IC	SN74HCT240AN
ICE4	8-759-916-71 s IC	SN74HC244AN
ICE8	8-759-916-49 s IC	SN74HC154NT
ICE9	8-759-917-06 s IC	SN74HC574AN
ICE10	8-759-917-06 s IC	SN74HC574AN
ICE11	8-759-917-06 s IC	SN74HC574AN
ICE13	8-759-917-06 s IC	SN74HC574AN
ICE14	8-759-917-06 s IC	SN74HC574AN
ICE17	8-759-918-33 s IC	CX20160
ICE19	8-752-340-75 s IC	CXK1206AM
ICE22	8-752-340-75 s IC	CXK1206AM
ICE24	8-752-340-75 s IC	CXK1206AM
ICE26	8-759-515-11 s IC	SN74ALS574BN
ICE27	8-759-515-11 s IC	SN74ALS574BN
ICE28	8-759-706-08 s IC	WS57C291B-DPR15E28V1, EPROM
ICE29	8-759-506-57 s IC	CXD8214P
ICE30	8-752-304-30 s IC	CX23043
ICF1	8-759-916-71 s IC	SN74HC244AN

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(DPR-42 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICF2	8-759-916-71	s IC SN74HC244AN
ICF3	8-759-978-59	s IC 74AC174PC
ICF4	8-759-978-59	s IC 74AC174PC
ICF5	8-759-073-06	s IC 18CV8-NEGACLIPV1, PLD
ICF6	8-759-073-06	s IC 18CV8-NEGACLIPV1, PLD
ICF7	8-759-086-58	s IC PALC22V10-ADRSDECV2, PLD
ICF9	8-759-147-02	s IC UPD42101C-3
ICF10	8-759-073-05	s IC 18CV8-SELINVV1, PLD
ICF11	8-759-073-05	s IC 18CV8-SELINVV1, PLD
ICF12	8-759-073-09	s IC CY7C271-DPR42F12V1, EPROM
ICF13	8-759-515-11	s IC SN74ALS574BN
ICF14	8-759-515-11	s IC SN74ALS574BN
ICF15	8-759-936-60	s IC SN74ALS273N
ICF16	8-759-073-10	s IC CY7C271-DPR42F16V1, EPROM
ICF17	8-759-706-09	s IC WS57C291B-DPR15F17V1, EPROM
ICF19	8-752-340-75	s IC CXK1206AM
ICF22	8-752-340-75	s IC CXK1206AM
ICF24	8-752-340-75	s IC CXK1206AM
ICF26	8-759-515-11	s IC SN74ALS574BN
ICF27	8-759-515-11	s IC SN74ALS574BN
ICF28	8-759-917-87	s IC 74F382PC
ICF29	8-759-917-87	s IC 74F382PC
ICG1	8-759-515-11	s IC SN74ALS574BN
ICG2	8-759-515-11	s IC SN74ALS574BN
ICG3	8-759-073-07	s IC AT27HC642-DPR42G3V1, EPROM
ICG4	8-759-706-22	s IC AT27HC642-DPR15G4V1, EPROM
ICG5	8-759-515-11	s IC SN74ALS574BN
ICG6	8-759-147-02	s IC UPD42101C-3
ICG7	8-759-515-11	s IC SN74ALS574BN
ICG8	8-759-706-23	s IC AT27HC642-DPR15G8V1, EPROM
ICG9	8-759-515-11	s IC SN74ALS574BN
ICG10	8-759-515-11	s IC SN74ALS574BN
ICG11	8-759-906-76	s IC 74F283PC
ICG12	8-759-045-96	s IC AT27HC642-DPR15G12V2, EPROM
ICG13	8-759-948-28	s IC SM5828P
ICG15	8-759-147-02	s IC UPD42101C-3
ICG16	8-759-147-02	s IC UPD42101C-3
ICG17	8-759-147-02	s IC UPD42101C-3
ICG19	8-752-340-75	s IC CXK1206AM
ICG22	8-752-340-75	s IC CXK1206AM
ICG24	8-752-340-75	s IC CXK1206AM
ICG26	8-759-917-87	s IC 74F382PC
ICG27	8-759-917-87	s IC 74F382PC
ICG28	8-759-906-76	s IC 74F283PC
ICG29	8-759-906-76	s IC 74F283PC
ICG30	8-752-304-30	s IC CX23043
ICH1	8-759-515-11	s IC SN74ALS574BN
ICH2	8-759-515-11	s IC SN74ALS574BN
ICH3	8-759-073-08	s IC AT27HC642-DPR42H3V1, EPROM
ICH4	8-759-147-02	s IC UPD42101C-3
ICH5	8-759-044-97	s IC PALC22V10-MPLGAINV1, PLD
ICH7	8-759-990-97	s IC CXD8156Q
ICH10	8-759-990-97	s IC CXD8156Q
ICH13	8-759-990-97	s IC CXD8156Q
ICH16	8-759-990-97	s IC CXD8156Q
ICH20	8-759-990-96	s IC CXD8157Q
ICH24	8-759-990-96	s IC CXD8157Q
ICH27	8-759-904-26	s IC SN74ALS08N

(DPR-42 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICH28	8-759-946-64	s IC SN74ALS04BN
ICH29	8-759-904-38	s IC SN74ALS32N
ICH30	8-752-304-30	s IC CX23043
ICJ1	8-759-515-11	s IC SN74ALS574BN
ICJ2	8-759-515-11	s IC SN74ALS574BN
ICJ3	8-759-918-33	s IC CX20160
ICJ4	8-759-918-33	s IC CX20160
ICJ5	8-759-082-42	o IC EPM5016-MSEQUENCEV2, PLD
ICJ7	8-759-990-97	s IC CXD8156Q
ICJ10	8-759-990-97	s IC CXD8156Q
ICJ13	8-759-990-97	s IC CXD8156Q
ICJ16	8-759-990-97	s IC CXD8156Q
ICJ20	8-759-990-97	s IC CXD8156Q
ICJ24	8-759-990-96	s IC CXD8157Q
ICJ26	8-759-515-11	s IC SN74ALS574BN
ICJ27	8-759-900-69	s IC SN74ALS74AN
ICJ28	8-759-900-69	s IC SN74ALS74AN
ICJ29	8-759-937-47	s IC SN74ALS86N
ICJ30	8-752-304-30	s IC CX23043
ICK26	8-759-515-11	s IC SN74ALS574BN
ICK27	8-759-900-69	s IC SN74ALS74AN
ICK28	8-759-900-69	s IC SN74ALS74AN
RB1	1-231-525-00	s RESISTOR BLOCK 4.7kx4
RB2	1-231-385-00	s RESISTOR BLOCK 4.7kx8
RB3	1-231-525-00	s RESISTOR BLOCK 4.7kx4
RB4	1-231-525-00	s RESISTOR BLOCK 4.7kx4
RB5	1-231-494-11	s RESISTOR BLOCK 240x4
RB6	1-235-468-11	s RESISTOR BLOCK 240x8
RB9	1-231-405-00	s RESISTOR BLOCK 1kx8
S1	1-570-598-11	s SWITCH, DIP 4-CKT
S2	1-554-027-00	s SWITCH, DIGITAL
S3	1-554-027-00	s SWITCH, DIGITAL
S4	1-554-027-00	s SWITCH, DIGITAL
S5	1-554-027-00	s SWITCH, DIGITAL
S6	1-570-728-11	s SWITCH, DIP 8-CKT

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

 FMY-10 BOARD

Ref. No.
 or Q'ty Part No. SP Description

This board is included in DPR-42 board.

C1	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C2	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C3	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C4	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C5	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C6	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C7	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C8	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C9	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C10	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C11	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C12	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C13	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C14	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C15	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C16	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C17	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C18	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C19	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C20	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C21	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C22	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C23	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C24	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C25	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C26	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C27	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C28	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C29	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C30	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C31	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C32	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C33	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C34	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C35	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C36	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C37	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C38	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C39	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C40	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C41	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C42	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C43	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C44	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C45	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C46	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C47	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C48	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C49	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C50	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C51	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C52	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C53	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
C54	1-164-004-11	s	CERAMIC, CHIP 0.1uF 10% 25V
CN1	1-565-832-12	o	PIN, DIL 20P
CN2	1-565-832-12	o	PIN, DIL 20P

(FMY-10 BOARD)

Ref. No.
 or Q'ty Part No. SP Description

CN3	1-565-832-12	o	PIN, DIL 20P
CN4	1-565-832-12	o	PIN, DIL 20P
IC1	8-759-986-62	s	IC 74ACT574SJ
IC2	8-759-986-62	s	IC 74ACT574SJ
IC3	8-759-926-82	s	IC SN74HC574ANS
IC4	8-752-340-75	s	IC CXK1206AM
IC5	8-752-340-75	s	IC CXK1206AM
IC6	8-752-340-75	s	IC CXK1206AM
IC7	8-752-340-75	s	IC CXK1206AM
IC8	8-759-323-08	s	IC HM63021FP-28
IC9	8-759-926-82	s	IC SN74HC574ANS
IC10	8-759-989-06	s	IC 74F283SJ
IC11	8-759-989-06	s	IC 74F283SJ
IC12	8-759-926-82	s	IC SN74HC574ANS
IC13	8-759-986-62	s	IC 74ACT574SJ
IC14	8-759-926-82	s	IC SN74HC574ANS
IC15	8-759-926-82	s	IC SN74HC574ANS
IC16	8-759-986-62	s	IC 74ACT574SJ
IC17	8-759-986-62	s	IC 74ACT574SJ
IC18	8-759-926-82	s	IC SN74HC574ANS
IC19	8-752-340-75	s	IC CXK1206AM
IC20	8-752-340-75	s	IC CXK1206AM
IC21	8-752-340-75	s	IC CXK1206AM
IC22	8-752-340-75	s	IC CXK1206AM
IC23	8-759-323-08	s	IC HM63021FP-28
IC24	8-759-926-82	s	IC SN74HC574ANS
IC25	8-759-989-06	s	IC 74F283SJ
IC26	8-759-989-06	s	IC 74F283SJ
IC27	8-759-926-82	s	IC SN74HC574ANS
IC28	8-759-986-62	s	IC 74ACT574SJ
IC29	8-759-926-82	s	IC SN74HC574ANS
IC30	8-759-926-82	s	IC SN74HC574ANS
IC31	8-759-986-62	s	IC 74ACT574SJ
IC32	8-759-986-62	s	IC 74ACT574SJ
IC33	8-759-926-82	s	IC SN74HC574ANS
IC34	8-752-340-75	s	IC CXK1206AM
IC35	8-752-340-75	s	IC CXK1206AM
IC36	8-752-340-75	s	IC CXK1206AM
IC37	8-752-340-75	s	IC CXK1206AM
IC38	8-759-323-08	s	IC HM63021FP-28
IC39	8-759-926-82	s	IC SN74HC574ANS
IC40	8-759-989-06	s	IC 74F283SJ
IC41	8-759-989-06	s	IC 74F283SJ
IC42	8-759-926-82	s	IC SN74HC574ANS
IC43	8-759-986-62	s	IC 74ACT574SJ
IC44	8-759-926-82	s	IC SN74HC574ANS
IC45	8-759-926-82	s	IC SN74HC574ANS
IC46	8-759-926-28	s	IC SN74HC174NS
IC47	8-759-926-29	s	IC SN74HC175ANS
IC48	8-759-926-29	s	IC SN74HC175ANS
IC49	8-759-925-74	s	IC SN74HC04ANS
IC50	8-759-323-08	s	IC HM63021FP-28
IC51	8-759-926-17	s	IC SN74HC153ANS
IC52	8-759-986-30	s	IC 74ACT240SJ
IC53	8-759-926-12	s	IC SN74HC139ANS
IC54	8-759-926-28	s	IC SN74HC174NS
R1	1-216-643-11	s	METAL, CHIP 470 0.5% 1/10W

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

MEM-41 BOARD

Ref. No.

or Q'ty Part No. SP Description

1pc	A-6259-458-A	o MOUNTED CIRCUIT BOARD, MEM-41 (SY MODEL)
1pc	A-6259-469-A	o MOUNTED CIRCUIT BOARD, MEM-41(A) (EK MODEL)
14pcs	1-526-816-21	o SOCKET, IC (DP) 24P
2pcs	3-166-184-01	o LEVER, PC BOARD
6pcs	7-621-773-87	s SCREW +B 2.6X10
2pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-626-320-11	s PIN, SPRING 3X8
8pcs	7-682-948-01	s SCREW +PSW 3X8
C1	1-124-589-11	s ELECT 47uF 20% 16V
CN1	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN3	1-506-748-11	s CONNECTOR, DIN 96P, MALE
COP1	1-563-859-11	s PLUG, SHORTING
COP2	1-563-859-11	s PLUG, SHORTING
COP3	1-563-859-11	s PLUG, SHORTING
COR1	1-566-388-11	s CONNECTOR, 8P, MALE
COR2	1-566-388-11	s CONNECTOR, 8P, MALE
COR3	1-566-388-11	s CONNECTOR, 8P, MALE
DL1	1-415-167-00	s DELAY LINE
F1	▲1-576-031-11	s FUSE, MICRO
F2	▲1-576-031-11	s FUSE, MICRO
ICA1	8-759-936-60	s IC SN74ALS273N
ICA2	8-759-904-87	s IC 74F374PC
ICA3	8-759-904-87	s IC 74F374PC
ICA4	8-759-917-53	s IC 74F139PC
ICA5	8-759-904-87	s IC 74F374PC
ICA6	8-759-505-73	s IC CY7C199-45PC
ICA7	8-759-505-73	s IC CY7C199-45PC
ICA8	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICA9	8-759-904-87	s IC 74F374PC
ICA10	8-759-505-73	s IC CY7C199-45PC
ICA11	8-759-505-73	s IC CY7C199-45PC
ICA12	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICA13	8-759-904-87	s IC 74F374PC
ICA14	8-759-505-73	s IC CY7C199-45PC
ICA15	8-759-505-73	s IC CY7C199-45PC
ICA16	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICA17	8-759-904-87	s IC 74F374PC
ICA19	8-759-990-95	s IC CXD8158Q
ICA20	8-759-990-95	s IC CXD8158Q
ICB1	8-759-904-87	s IC 74F374PC
ICB2	8-759-904-87	s IC 74F374PC
ICB3	8-759-904-87	s IC 74F374PC
ICB4	8-759-938-93	s IC 74F157APC
ICB5	8-759-906-78	s IC 74F399PC
ICC1	8-759-904-80	s IC 74F04PC
ICC2	8-759-904-87	s IC 74F374PC
ICC3	8-759-904-87	s IC 74F374PC
ICC4	8-759-917-53	s IC 74F139PC
ICC5	8-759-904-87	s IC 74F374PC
ICC6	8-759-505-73	s IC CY7C199-45PC
ICC7	8-759-505-73	s IC CY7C199-45PC
ICC8	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICC9	8-759-904-87	s IC 74F374PC

(MEM-41 BOARD)

Ref. No.

or Q'ty Part No. SP Description

ICC10	8-759-505-73	s IC CY7C199-45PC
ICC11	8-759-505-73	s IC CY7C199-45PC
ICC12	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICC13	8-759-904-87	s IC 74F374PC
ICC14	8-759-505-73	s IC CY7C199-45PC
ICC15	8-759-505-73	s IC CY7C199-45PC
ICC16	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICC17	8-759-904-87	s IC 74F374PC
ICC19	8-759-990-95	s IC CXD8158Q
ICC20	8-759-990-95	s IC CXD8158Q
ICD1	8-759-904-87	s IC 74F374PC
ICD2	8-759-904-87	s IC 74F374PC
ICD3	8-759-904-87	s IC 74F374PC
ICD4	8-759-938-93	s IC 74F157APC
ICD5	8-759-906-78	s IC 74F399PC
ICD6	8-759-505-73	s IC CY7C199-45PC
ICD7	8-759-505-73	s IC CY7C199-45PC
ICD8	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICD9	8-759-904-87	s IC 74F374PC
ICD10	8-759-505-73	s IC CY7C199-45PC
ICD11	8-759-505-73	s IC CY7C199-45PC
ICD12	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICD13	8-759-904-87	s IC 74F374PC
ICD14	8-759-505-73	s IC CY7C199-45PC
ICD15	8-759-505-73	s IC CY7C199-45PC
ICD16	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICD17	8-759-904-87	s IC 74F374PC
ICD19	8-759-990-95	s IC CXD8158Q
ICD20	8-759-990-95	s IC CXD8158Q
ICE1	8-759-904-77	s IC AM26LS32ACN
ICE2	8-759-904-87	s IC 74F374PC
ICE3	8-759-904-87	s IC 74F374PC
ICE4	8-759-917-53	s IC 74F139PC
ICE5	8-759-904-87	s IC 74F374PC
ICE6	8-759-505-73	s IC CY7C199-45PC
ICE7	8-759-505-73	s IC CY7C199-45PC
ICE8	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICE9	8-759-904-87	s IC 74F374PC
ICE10	8-759-505-73	s IC CY7C199-45PC
ICE11	8-759-505-73	s IC CY7C199-45PC
ICE12	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICE13	8-759-904-87	s IC 74F374PC
ICE14	8-759-505-73	s IC CY7C199-45PC
ICE15	8-759-505-73	s IC CY7C199-45PC
ICE16	8-759-505-73	s IC CY7C199-45PC (EK MODEL ONLY)
ICE17	8-759-904-87	s IC 74F374PC
ICE19	8-759-990-95	s IC CXD8158Q
ICE20	8-759-990-95	s IC CXD8158Q
ICF1	8-759-904-87	s IC 74F374PC
ICF2	8-759-904-87	s IC 74F374PC
ICF3	8-759-904-87	s IC 74F374PC
ICF4	8-759-938-93	s IC 74F157APC
ICF5	8-759-906-78	s IC 74F399PC
ICG1	8-759-904-87	s IC 74F374PC
ICG2	8-759-904-87	s IC 74F374PC
ICG3	8-759-904-79	s IC 74F00PC
ICG4	8-759-904-79	s IC 74F00PC
ICG5	8-759-904-80	s IC 74F04PC

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

(MEM-41 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
ICG6	8-759-904-83	s IC 74F32PC
ICG7	8-759-913-63	s IC SN74ALS374N
ICG8	8-759-904-81	s IC 74F08PC
ICG9	8-759-917-53	s IC 74F139PC
ICG10	8-759-904-83	s IC 74F32PC
ICG11	8-759-904-83	s IC 74F32PC
ICG12	8-759-906-66	s IC 74F86PC
ICG13	8-759-904-83	s IC 74F32PC
ICG14	8-759-904-83	s IC 74F32PC
ICG15	8-759-913-63	s IC SN74ALS374N
ICG16	8-759-913-63	s IC SN74ALS374N
ICG17	8-759-904-80	s IC 74F04PC
ICG18	8-759-706-19	s IC WS57C291B-MEM41G18V1
ICG19	8-759-506-57	s IC CXD8214P
ICG20	8-759-500-76	s IC CXD8040G
ICH1	8-759-906-78	s IC 74F399PC
ICH2	8-759-906-78	s IC 74F399PC
ICH3	8-759-904-87	s IC 74F374PC
ICH6	8-759-904-83	s IC 74F32PC
ICH7	8-759-904-79	s IC 74F00PC
ICH8	8-759-079-03	o IC WS57C291B-MEM41H8V2
ICH9	8-759-079-04	o IC WS57C291B-MEM41H9V2
ICH10	8-759-079-43	o IC WS57C291B-MEM41H10V2
ICH11	8-759-079-06	o IC WS57C291B-MEM41H11V2
ICH12	8-759-904-87	s IC 74F374PC
ICH14	8-759-706-14	s IC WS57C291B-MEM41H14V1
ICH15	8-759-706-15	s IC WS57C291B-MEM41H15V1
ICH17	8-759-990-97	s IC CXD8156Q
ICH19	8-759-506-57	s IC CXD8214P
ICJ2	8-759-918-33	s IC CX20160
ICJ3	8-759-918-33	s IC CX20160
ICJ4	8-759-913-63	s IC SN74ALS374N
ICJ5	8-759-938-93	s IC 74F157APC
ICJ6	8-759-002-00	s IC MC74F153N
ICJ7	8-759-904-80	s IC 74F04PC
ICJ8	8-759-078-98	o IC WS57C291B-MEM41J8V2
ICJ9	8-759-078-99	o IC WS57C291B-MEM41J9V2
ICJ10	8-759-079-00	o IC WS57C291B-MEM41J10V2
ICJ11	8-759-079-01	o IC WS57C291B-MEM41J11V2
ICJ12	8-759-904-87	s IC 74F374PC
ICJ13	8-759-079-02	o IC WS57C291B-MEM41J13V2
ICJ14	8-759-706-17	s IC WS57C291B-MEM41J14V1
ICJ15	8-759-706-18	s IC WS57C291B-MEM41J15V1
ICJ16	8-759-904-81	s IC 74F08PC
ICJ17	8-759-904-81	s IC 74F08PC
ICJ18	8-759-904-81	s IC 74F08PC
ICJ19	8-759-506-57	s IC CXD8214P
ICJ20	8-759-500-76	s IC CXD8040G
RB1	1-231-533-00	s RESISTOR BLOCK 10kx4
S1	1-570-598-11	s SWITCH, DIP

EX-270 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	A-6279-735-A	s EX-270 ASSY
1pc	A-6279-728-A	o RAIL (R) ASSY
1pc	A-6279-729-A	o RAIL (L) ASSY
2pcs	3-701-439-21	s WASHER
2pcs	3-166-847-01	o BRACKET, PC BOARD LEVER
2pcs	3-166-184-01	o LEVER, PC BOARD
4pcs	3-167-578-01	s NUT, PLATE
2pcs	3-167-579-01	o BRACKET, PC BOARD LEVER
1pc	3-167-586-01	o PLATE, SHIELD
12pcs	7-621-773-87	s SCREW +B 2.6X10
4pcs	7-622-207-05	s N 2.6, TYPE 2
2pcs	7-624-105-04	s STOP RING 2.3, TYPE-E
2pcs	7-626-320-11	s PIN, SPRING 3X8
6pcs	7-682-903-01	s SCREW +PSW 3X5
16pcs	7-682-948-01	s SCREW +PSW 3X8
CN1	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN2	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN3	1-506-748-11	s CONNECTOR, DIN 96P, MALE
CN4	1-563-341-11	s CONNECTOR, DIN 96P, FEMALE
CN5	1-563-341-11	s CONNECTOR, DIN 96P, FEMALE
CN6	1-563-341-11	s CONNECTOR, DIN 96P, FEMALE

LE-76 BOARD

Ref. No. or Q'ty	Part No.	SP Description
1pc	1-631-489-11	o PC BOARD, LE-76
D1	8-719-920-05	s DIODE TLG123A
D2	8-719-920-05	s DIODE TLG123A
D3	8-719-920-05	s DIODE TLG123A
D4	8-719-920-05	s DIODE TLG123A

Parts that are not listed in the "reference number order list" are shown in the "General Purpose Electrical Parts List".

MB-305 BOARD

Ref. No. or Q'ty	Part No.	SP Description
5pcs	1-580-355-11	o HOUSING, CONNECTOR 96P
98pcs	7-622-207-05	s N 2.6, TYPE 2
98pcs	7-628-254-20	s SCREW +PS 2.6X8
CN1	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN2	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN3	1-580-299-11	o CONNECTOR, DIN 96P
CN4	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN5	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN6	1-580-299-11	o CONNECTOR, DIN 96P
CN7	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN8	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN9	1-580-299-11	o CONNECTOR, DIN 96P
CN10	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN11	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN12	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN13	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN14	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN15	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN16	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN17	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN18	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN19	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN20	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN21	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN22	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN23	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN24	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN25	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN26	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN27	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN28	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN29	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN30	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN31	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN32	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN33	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN34	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN35	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN36	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN37	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN38	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN39	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN40	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN41	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN42	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN43	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN44	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN45	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN46	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN47	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN48	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN49	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN50	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN51	1-580-299-11	o CONNECTOR, DIN 96P
CN52	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN53	1-563-337-11	s CONNECTOR, DIN 96P, FEMALE
CN54	1-580-299-11	o CONNECTOR, DIN 96P
CN55	1-564-214-11	o PIN, CONNECTOR 3P

(MB-305 BOARD)

Ref. No. or Q'ty	Part No.	SP Description
CN56	1-506-472-11	s CONNECTOR, 7P, MALE
CN57	1-535-869-11	s INSERT, POWER
CN58	1-535-869-11	s INSERT, POWER
CN59	1-535-869-11	s INSERT, POWER
CN60	1-535-869-11	s INSERT, POWER
CN61	1-535-869-11	s INSERT, POWER
CN62	1-535-869-11	s INSERT, POWER
CN63	1-535-869-11	s INSERT, POWER
CN64	1-535-869-11	s INSERT, POWER
CN65	1-535-869-11	s INSERT, POWER
CN66	1-535-869-11	s INSERT, POWER
CN67	1-535-869-11	s INSERT, POWER
CN68	1-535-869-11	s INSERT, POWER
CN69	1-535-869-11	s INSERT, POWER
CN70	1-535-869-11	s INSERT, POWER
CN71	1-535-869-11	s INSERT, POWER
CN72	1-535-869-11	s INSERT, POWER
CN73	1-535-869-11	s INSERT, POWER
CN74	1-535-869-11	s INSERT, POWER
RB1	1-231-399-00	s RESISTOR BLOCK 330x8
RB2	1-231-400-00	s RESISTOR BLOCK 390x8
RB3	1-231-399-00	s RESISTOR BLOCK 330x8
RB4	1-231-400-00	s RESISTOR BLOCK 390x8
RB5	1-231-399-00	s RESISTOR BLOCK 330x8
RB6	1-231-400-00	s RESISTOR BLOCK 390x8
RB7	1-231-399-00	s RESISTOR BLOCK 330x8
RB8	1-231-400-00	s RESISTOR BLOCK 390x8
RB9	1-235-452-11	s RESISTOR BLOCK 330x4
RB10	1-231-499-00	s RESISTOR BLOCK 390X4

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FRAME

Ref. No.
or Q'ty Part No. SP Description

4pcs 1-249-408-11 s CARBON 180 5% 1/4W
1pc ▲1-413-477-12 s REGULATOR, SWITCHING (EWS50-5)
1pc ▲1-413-569-11 s REGULATOR, SWITCHING (LWT-4HA522)
1pc ▲1-413-594-12 s SWITCHING REGULATOR
1pc ▲1-424-136-21 s FILTER, NOISE
1pc 1-506-468-11 o CONNECTOR, 3P, MALE
1pc ▲1-540-178-11 s INLET, AC (GL-2100C-30)
3pcs 1-541-329-31 s FAN, DC (WITH ALARM)
1pc ▲1-572-345-11 s SWITC, SEESAW (AC POWER)
1pc 1-631-489-11 o PC BOARD, LE-76
4pcs 8-719-920-05 s DIODE TLG123A
HARNESS (MB1)
1-535-321-11 o TERMINAL, SOLDERLESS
1-535-427-00 o TERMINAL, SOLDERLESS
1-580-352-11 o HOUSING, CONNECTOR 20P
1-580-359-21 o TERMINAL, CONNECTOR SOLDERLESS
HARNESS(MB2)
1-535-321-11 o TERMINAL, SOLDERLESS
1-535-427-00 o TERMINAL, SOLDERLESS
1-562-210-11 s CONTACT, FEMALE AWG18-22
1-562-211-11 o HOUSING, CONNECTOR 3P
1-569-200-11 o HOUSING, CONNECTOR 7P
1-580-352-11 o HOUSING, CONNECTOR 20P
1-580-358-21 o TERMINAL, CONNECTOR SOLDERLESS
1-580-359-21 o TERMINAL, CONNECTOR SOLDERLESS
1-580-360-21 o TERMINAL, CONNECTOR SOLDERLESS
HARNESS(AC SW)
1-535-316-11 s TERMINAL, GROUND (M4)
▲1-535-321-11 o TERMINAL, SOLDERLESS
▲1-535-446-00 o TERMINAL, FASTEN
▲1-563-156-11 o TERMINAL
▲1-576-044-11 s BREAKER, CIRCUIT 6A 250V
3-723-892-01 o COVER, CIRCUIT BREAKER
HARNESS (AC1)
▲1-535-321-11 o TERMINAL, SOLDERLESS
1-535-340-11 o TERMINAL, SOLDERLESS
▲1-535-341-11 o TERMINAL, SOLDERLESS
1-562-210-11 s CONTACT, FEMALE AWG18-22
1-562-286-11 o HOUSING, CONNECTOR 5P
HARNESS(DC1)
1-535-690-11 o TERMINAL, SOLDERLESS
1-580-349-11 o HOUSING, CONNECTOR 20P
1-580-359-21 o TERMINAL, CONNECTOR SOLDERLESS
HARNESS(DC2)
1-535-321-11 o TERMINAL, SOLDERLESS
1-535-341-11 o TERMINAL, SOLDERLESS
1-560-372-00 o TERMINAL, SOLDERLESS
1-561-516-00 o CONNECTOR HOUSING (4P)
1-562-210-11 s CONTACT, FEMALE AWG18-22
1-562-833-11 o HOUSING, 7P
1-569-196-11 o HOUSING, CONNECTOR 3P
1-580-349-11 o HOUSING, CONNECTOR 20P
1-580-358-21 o TERMINAL, CONNECTOR SOLDERLESS
1-580-359-21 o TERMINAL, CONNECTOR SOLDERLESS
1-580-360-21 o TERMINAL, CONNECTOR SOLDERLESS

PACKING MATERIALS & SUPPLIED ACCESSORIES

Ref. No.
or Q'ty Part No. SP Description

(SY MODEL)
1pc A-6279-735-A s EX-270 ASSY
1pc ▲1-506-411-21 s ADAPTOR, AC PLUG 3P-2P
1pc ▲1-557-377-11 s CORD, POWER
1pc 1-569-221-11 o CONNECTOR, BNC (WITH RESISTOR)
1pc 2-990-242-01 o HOLDER (B), PLUG
1pc 3-701-640-00 s BAG, POLYETHYLENE
1pc 3-701-648-00 s BAG, POLYETHYLENE
(EK MODEL)
1pc A-6279-735-A s EX-270 ASSY
1pc ▲1-556-760-11 s CORD, POWER (3 CORE)
1pc 1-569-221-11 o CONNECTOR, BNC (WITH RESISTOR)
1pc 2-990-242-01 o HOLDER (B), PLUG
1pc 3-701-640-00 s BAG, POLYETHYLENE
1pc 3-701-648-00 s BAG, POLYETHYLENE

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